

**BEFORE THE NATIONAL GREEN TRIBUNAL (SOUTHERN ZONE) CHENNAI
O.A. NO.: 257 OF 2020**

IN THE MATTER OF:

Tribunal on its own motion – Suo Motu based on the News item in the New Indian Express Newspaper, dated 27-11-2020 under the caption “A Coom in the making in Karur?”. Callousness of officials.”

... Applicant

VERSUS

The Chief Secretary to Govt. of Tamilnadu and others

... Respondent(s)

**REPORT OF THE JOINT COMMITTEE FILED WITH REGARD TO
HON’BLE TRIBUNAL ORDER DATED DECEMBER 15, 2020**

I, H.D. Varalaxmi, daughter of Shri. H. Devaiah, Hindu, aged about 51 years, having office at the Regional Directorate, Central Pollution Control Board, 2 Floor, 77-A, South Avenue Road, Ambattur Industrial Estate, Chennai – 600 058 do hereby solemnly affirm and sincerely state as follows: -

That I am presently working as Scientist ‘E’ & holding the charge of Regional Director (Chennai), Central Pollution Control Board, (hereafter called as CPCB) have been authorized to file the Joint Committee report. I am fully conversant with the facts of the case and hence, competent and authorized to depose and swear the present as under:

That the Hon’ble National Green Tribunal, Southern Zone Bench, Chennai vide order dated 15.12.2020, 22.02.2021 & 12.04.2021 constituted the committee with a direction to submit the factual status report to the Tribunal on or before 25.05.2021 by e-filing in the form of searchable PDF/OCR support PDF. The report of the Joint Committee is enclosed as appendix.

DEPONENT

VERIFICATION

It is verified that the content of this report is based on the observations of the Joint Committee and nothing has been concealed therein.

Signed and verified on this 20th day of May, 2021 at Chennai

COUNSEL FOR CPCB

DEPONENT

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE BENCH, CHENNAI**

Original Application No. 257 of 2020 (SZ)

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Place: Chennai
Date: 20.05.2021



H.D. Varalaxmi

DEPONENT

H.D. Varalaxmi

Regional Director
Central Pollution Control Board
Regional Directorate, Chennai

BEFORE THE
HON'BLE NATIONAL GREEN TRIBUNAL
(SOUTHERN ZONE) CHENNAI
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Report of the Joint Committee filed before the
Hon'ble National Green Tribunal, Southern Zone, Chennai
in the matter of OA No.: 257/2020 (SZ)

1.0 Preamble:

A case has been registered by Hon'ble National Green Tribunal, Southern Zone, Chennai on its own motion-SUO MOTU based on the newspaper report published in the Indian Express dated 27th November, 2020 under the caption “A

Cooum in the making in Karur?” and an Order was passed on 15th December, 2020 stating that;

“... 8. In order to ascertain the genuineness of the allegations made in the paper report and action taken by the local body to resolve the issues, we feel it appropriate to appoint a joint committee comprising of 1) the District Collector, Karur District, or a Senior Officer not below the rank of Assistant Collector or Sub Divisional Magistrate deputed by the District Collector, 2) a Senior Scientist from Central Pollution Control Board (CPCB), Regional Office, Chennai, (3) a Senior Officer from the Tamil Nadu State Pollution Control Board as designated by its Chairman, 4) a Senior Officer not below the rank of Superintending Engineer of Public Works Department and Water Resources Organisation (WRO) of that area, (5) the Municipal Commissioner, Karur Municipality to inspect the area in question and submit a factual as well as action taken report, if there is any violation found, including assessment of environmental compensation for damage caused on account of any alleged illegal activity resulting in pollution to the water in the river Amaravathy.

9. The committee is directed to inspect the industries in that area and ascertain as to whether they are having proper effluent treatment discharge system and is there any illegal or unauthorised untreated discharge being made by any of the industries in that district to the Amaravathy river so as to cause the pollution of the river water

10. The committee is also directed as to ascertain as to whether there is any illegal discharge of untreated sewage from the municipal area to the river.

11. *The committee is also directed to ascertain the existence and functioning of any Effluent Treatment Plant (ETP), Sewage Treatment Plant (STP) and requirement of a Common Effluent Treatment Plant (CETPs) in that area and its operation level as to whether it meets all the norms by testing the inlets and outlets of the effluents being treated by these units and if there is any violation found, what is the action proposed to be taken against such units.*

12. *The committee is also directed to ascertain as to whether Karur Municipality is complying with the provisions of the Solid Waste Management Rules, 2016 in its letter and spirit in disposing the waste generated including the sewage and whether there is any illegal discharge of such things into the river which causes pollution and whether the direction issued by the Principal Bench of National Green Tribunal in O.A. No. 606 of 2018 have been complied with.*

13. *The committee is also directed to test the water quality of the river in respect of all criteria's including the presence of heavy metals, Total Coliform (TCL) and Faecal Coliform (FCL) apart from ascertaining the quality of water in the river and if there is any contamination found, ascertain the source and suggest the necessary steps to be taken for removing the contamination and make the water to the potable level.*

14. *The committee is also directed to suggest the proposed actions to be taken against the erring units and on that basis; the regulating authorities are directed to take steps against such units so as to prevent such illegal activities being continued in that area*

15. Central Pollution Control Board (CPCB), Regional Office, Chennai will be the nodal agency for co-ordination and for providing all necessary logistics for this purpose.

16. The committee is directed to submit the report to this Tribunal on or before 22.02.2021 by e-filing... ”

A copy of the said Order is placed at **Annexure – 1**

Joint committee submitted to the Hon’ble tribunal stating that the inspection was carried out and water samples have been taken and requested six weeks time for submission of the final report.

*Hon’ble tribunal has considered the request of the joint committee and further directed the committee to file the report on or before 12.04.2021. The copy of the said Order is placed at **Annexure – 2**. Joint Committee could not complete the report for want of additional information and requested for further four weeks time. Hon’ble tribunal directed the committee, District Administration and Karur Municipality to file the report on or before 25.05.2021. The copy of the said Order is placed at **Annexure – 3**.*

2.0 Constitution of Joint Committee

In compliance with the above said Order and with the approval of Member Secretary, Central Pollution Control Board, Delhi; Regional Director, Chennai has constituted the Joint Committee (Copy of Constitution Order is enclosed as

Annexure - 4) with the following members based on the nominations received from the respective Departments:

S. No	Name of Member & his designation	Organization	Contact details Mob no & email ID
1.	District Revenue Officer, Karur	District Collector, Karur	9445000918 & dro.tnkar@nic.in
2.	Shri.P. Muthusamy, Superintending Engineer, PWD, WRD, Palani	Chief Engineer, WRD, Coimbatore Region	9865227961 & sewropalani@gmail.com
3.	Shri. I. Nakkiran Municipal Engineer	The Commissioner, Karur Municipal Council, Karur	8489916703 & commr.karur@tn.gov.in
4..	Shri. K. Ravichandran, District Environmental Engineer, Karur District	Chairman, Tamilnadu Pollution Control Board, Chennai	8056042243 & tnpcbkarur@gmail.com
4.	Shri. S. Karthikeyan, Scientist C	Central Pollution Control Board, Regional Directorate, Chennai	9243424389 & skarthikeyan.cpcb@ nic.in

3.0 Meetings of the Joint Committee:

In compliance to Hon'ble NGT Order dated 15.12.2020, CPCB as a Nodal Agency Organized a meeting on 3rd February, 2021 through video conference to discuss the Order issued by Hon'ble NGT, deliberated the issues, and made a strategical plan to address the issues. All the members of the Joint Committee attended the meeting through video conference. The Committee has decided unanimously to carry out the area inspection of Karur town and joint monitoring of River Amaravathy, Discharges, ETP, CETP, STP, MSW treatment facilities and priority industries on river bed on 11th and 12th February, 2021 tentatively.

As decided by the joint committee in its meeting held on 3rd February, 2021, a joint committee meeting was convened by the District Revenue Officer, Karur on 11th February, 2021 at 10.30 AM at his Office. All the members of the Joint Committee attended the meeting in person and discussed the terms of reference of

the Hon'ble NGT Order, finalized the river stretches to be surveyed to identify all the drains/discharges in the stretch, STP, ETPs, CETPs and industries to be inspected based on the pollution potential. Accordingly, two days program was prepared and finalized. Further discussed the Monitoring protocol, sampling methodology, parameters to be analysed and concluded the same. Exhibits are placed at Annexure – 10.

4.0 Inspection of the Area by Joint Committee:

As decided in the joint committee meeting, the committee carried out the inspection of the following area on February 11, 2021:

4.01 Inspection of industries in Karur: DEE, TNPCB, Karur appraised the joint committee stating that

Prior to the year 2012, there were 487 Textile processing units in and around Karur town. Out of 487 units, 391 units were members of one of the eight CETPs and balance 96 units were having their own individual ETP. The treated effluent from these units was discharged either directly or indirectly into irrigation canals of River Amaravathy.

During the year 2011 - 2012, all 487 units and 8 CETPs in Karur were totally closed down and power supply to the units were disconnected since the units failed to establish the ZLD system based on the direction issued by Hon'ble High Court of Madras in WP no.: 24560/2003 filed by the agriculture association.

At present, 68 units have established Zero Liquid Discharge (ZLD) system comprises of Effluent Treatment System, RO Plant and Reject Management System and operating the units with valid consent of TNPCB. Out of 68 units, only 61 units are in operation and remaining

seven units are not in operation for the last one year. TNPCB has issued closure Order on 16.12.2020 to five units due to violations observed in ZLD system. Thus, the units are treating their effluent, recycling their entire treated water in the process and not allowed to discharge any effluent.

The Joint Committee inspected two ZLD systems established at M/s. Atlas Processing Mills, Village Andankoil, Karur and M/s. Navarang Dye works, Sanapiratty Village, which are located within 500 m from the river bed and assessed its adequacy.

4.02 Common Effluent Treatment Plant (CETP): It is reported that in Karur area, eight CETPs were in Operation. In accordance with the direction issued by Hon'ble High Court of Madras in WP no.: 24560/2003 filed by the agriculture association, all the eight CETPs has been closed down, since they failed to adopt the ZLD system. The joint Committee inspected two CETPs located within 500 m from the river bed namely

1. M/s Karur Andankoil Pollution Control Ltd., S.F No. 1812, Andankoil West Village, Karur Taluk
2. M/s Amaravathy Pollutech Ltd., Andankoil East Village, Karur Taluk.

Verified that both the CETPs found closed and witnessed that removal of recovered sludge was under progress.

4.03 Effluent Treatment Plant (ETP): Consent has been granted to those units only, which have ZLD system. Thus, there is no standalone operational ETP in Karur area.

4.04 Sewage Treatment Plant (STP): Inspected the STP and verified the facilities available. In order to evaluate the performance of STP, it is decided to collect the samples of Inlet, Aeration tank and Outlet.

4.05 Discharge points into River Amaravathy: Survey for eleven km stretch of River Amaravathy has been carried out by the joint committee in order to identify the discharge points into the River Amaravathy. During the survey, the joint committee has identified six discharge points into the river. All the six discharges of the Karur into River Amaravathy namely Periandankoil, AVS-AVR Colony, Chinnandankoil, Light House (Under Old bridge), Sungagate, Kolantagoundanur and T. Sellandipalayam were surveyed, observed its nature & basic characteristics of discharges and decided to collect the samples to assess its pollution potential.

4.06 River Amaravathy:

Eleven km stretch starting from Check Dam at Andankoil village i.e, upstream of Karur town to Downstream of Karur town at Sanapiratti was surveyed to assess the quantity and quality of river water and to find out any discharges into the river. On the day of inspection, scanty flow was noticed in the River and it is reported that the flow was 10 Cusecs.

4.07 Solid Waste Management/Treatment Facilities: Inspected the Bio-methanation Plant, Micro Compost Centre (MCC), and material recovery facility in Integrated Solid Waste Management Facility at Arasu Colony, Vangal Road, Bio-Mining site/Legacy waste processing centre, Village Panchamadevi and MCC at Arugampalayam in order to ascertain the facilities available and assess its performance.

5.0 Joint Monitoring :

Based on the outcome of area inspection, the joint committee carried out the monitoring of the following places on February 12, 2021.

Based on the area inspection and observation of the joint Committee, samples were collected to assess the quality of River Amaravathy & the pollution potential of discharges and evaluate the performance of STP. The details of samples collected are as follows:

S.No.	Matrix	No. of samples collected
1.0	River Amaravathy	4
2.0	Discharges into River Amaravathy	6
3.0	Sewage Treatment Plant, Karur	3
4.0	CETPs, 8 nos	All were Closed down fully
5.0	ETPs	No standalone ETP
	Total	13

List of sampling point and the parameters analysed, is presented below:

List of samples collected and parameters to be analysed

Samples from River Amaravathy

S.No.	Sampling point	Geo-coordinates	Parameters analysed
1.	Check Dam at Andankoil, Upstream of Karur town, left bank	N 10° 57' 5.7636" E 78° 2' 26.1276"	pH, TDS, DO, BOD, COD, Cl, SO ₄ , PO ₄ , TKN, Total Nitrogen, Ammonical Nitrogen,

2.	Madurai Bye-pass bridge (NH44), left bank	N 10° 56' 33.1008" E 78° 3' 25.8156"	NO ₃ -N, NO ₂ -N, Fluoride, Total Alkalinity, P-Alkalinity, Total Hardness, Ca, Mg, Na, K, SAR, RSC, Boron, Total Coliform, FC & Heavy metals (Cu, Cd, Cr (Total & Hexa), Iron, Mn, Ni, Pb & Zn)
3.	Thirumanilayur Padikattuthurai, Right bank	N 10° 57' 5.7636" E 78° 2' 26.1276"	
4.	Sanapiratti village near Old Dindugal Water Supply Scheme, Right bank	N 10° 57' 5.7636" E 78° 2' 26.1276"	

Sample of discharges:

S.No.	Name of the discharge	Geo-coordinates	Side of River bank	Area of source	Comes under UGDS area or not
1.	Periyar Nagar, Opp. Periandankoil Over Head Tank	N 10° 57' 6" E 78° 2' 34"	Left	Chinnandan Koil East village Panchayat	Not covered
2.	AVS-AVR Colony, Chinnandankoil	N 10° 57' 13" E 78° 4' 17"	Left	Ward No 19	Partly covered
3.	Light House (Under Old bridge),	N 10° 57' 19" E 78° 4' 56"	Left	Ward No 27	Partly covered
4.	Sungagate discharge	N 10° 57' 6" E 78° 5' 12"	Right	Ward No 30	Non covered
5.	Near Animal Husbandary office, Kolantagoundanur	N 10° 57' 3" E 78° 5' 35"	Right	Ward No 37	Non covered
6.	T. Sellandipalayam	N 10° 56' 40" E 78° 4' 22"	Right	Ward No 41	Non covered

Parameters analysed; pH, TSS, TDS, BOD, COD, Ammonical Nitrogen, Oil & Grease & Heavy metals (Cu, Cd, Cr (Total & Hexa), Mn, Ni, Pb & Zn)

Samples from STP:

S.No.	Name of the discharge	Geo-coordinates	Parameters analysed
1.	Inlet to STP	N 10° 57' 6" E 78° 2' 34"	pH, TSS, TDS, BOD, COD, Ammonical Nitrogen & Total Nitrogen
2.	Outlet to STP	N 10° 57' 13" E 78° 4' 17"	pH, TSS, TDS, BOD, COD, Ammonical Nitrogen, Total Nitrogen, SAR, RSC, Oil & Grease and TC & FC
3.	Aeration Tank	N 10° 57' 19" E 78° 4' 56"	DO & MLSS

In Toto, four samples of river, six samples from discharge points into the river and three samples from STP and thus a total of thirteen samples were collected, sealed and sent to Advance Environmental Laboratories, TNPCB, Salem for further analysis. Based on the test report, the analytical test data has been interpreted as follows.

5.1 River Water Quality:

5.1.1 Characteristics of samples collected from six Discharge Points;

During the survey, the joint committee has noticed untreated sewage is discharged into River Amaravathy at six points, collected the samples from each discharge points and analysed for the Environmental pollutant parameters. Analytical Test Report of discharges is placed at **Annexure 5**. The Analytical Test Data of those discharges are presented below;

Analytical Test Data of discharges

S.No.	Parameter	Periyar Nagar, Periandankoil	AVS-AVR Colony	Light House corner	Sungagate	Near Animal Husbandary Office	T. Sellandipalayam
1.	pH at 25 °C	6.72	6.77	6.48	6.68	6.9	6.68
2.	TDS at 180°C	796	1584	884	1584	1592	2132
3.	TSS	80	44	52	128	48	64
4.	Fixed Dissolved solids	760	1524	828	1496	1512	2040
5.	BOD	30	30	33	84	74	78
6.	COD	192	208	200	416	376	384
7.	Oil & Grease	< 4	< 4	< 4	4	4	4
8.	Ammonical Nitrogen as NH ₃ -N	6.16	10.1	6.72	12.9	11.2	14.6
9.	Copper	BDL	BDL	BDL	BDL	BDL	BDL
10.	Zinc	BDL	BDL	BDL	BDL	BDL	BDL
11.	Lead	BDL	BDL	BDL	BDL	BDL	BDL
12.	Nickel	BDL	BDL	BDL	BDL	BDL	BDL
13.	Cadmium	BDL	BDL	BDL	BDL	BDL	BDL
14.	Manganese	BDL	BDL	BDL	BDL	BDL	BDL
15.	Total Chromium	BDL	BDL	BDL	BDL	BDL	BDL
16.	Hexavalent Chromium	BDL	BDL	BDL	BDL	BDL	BDL
17.	Flow	Scanty	Moderate	Low	Moderate	Moderate	Low

Note.: All values are in mg/L except pH. BDL – Below Detection Limit.

The pH of the drain is varying from 6.48 to 6.9, which are in line with normal characteristics of sewage.

TSS of the discharges varies from 44 to 128, which are in line with normal characteristics of sewage. Normally it will be around 100.

TDS of the discharges normally depends on the TDS of raw water used. It varies from 796 to 2132 mg/L, which is slightly more than the normal value. The reason may be due to higher TDS in raw water being consumed.

BOD of the discharges varies from 30 to 84. Normally BOD of a typical sewage will be around 300 mg/l. Here it is on lower side, may be due to dilution. On further enquiry, it is informed by the Officials of Karur Municipality based on the repeated analysis of STP inlet samples that the BOD of sewage from Karur area will be normally around 100 mg/L only.

Oil & Grease of the discharges are lies in between near and below detection level.

All elements of heavy metals are below detection level.

From the test report, it is inferred that the discharges are nothing but the untreated sewage from nearby households. Where the average BOD comes to 54.8 mg/L against the Standard of 30 mg/l. Therefore, the discharge of untreated sewage should be stopped immediately. Therefore, it should be channelized to STP for treatment. If the same is not technically feasible, onsite decentralised wastewater treatment should be installed. The operation of such system should be self-sustained, once it is stabilized after its establishment.

5.1.2 Water quality of River Amaravathy:

Water quality with respect to physicochemical parameters and heavy metals were assessed. During the site inspection, the joint committee observed the scanty flow and a flow of 10 cusecs was reported. The flow was on one side of the bank and following a small stream. The Analytical Test Report of river samples is placed at **Annexure - 6.**

Water quality with respect to physicochemical parameters:

S.No.	Parameters	*BIS Drinking water quality Standards Acceptable/ Permissible, mg/l	AndanKoil Check Dam, Upstream of Karur town	NH44 Madurai bypass bridge	Thirumanilayur at right bank	Sanapirati at right bank
1.	pH	6.5 to 8.5	7.27	7.05	7.2	7.3
2.	DO	5.0 mg/Lfor bathing	6.0	6.7	6.8	6.8
3.	TDS at 180°C	500/2000	512	556	576	612
4.	FDS	--	492	532	556	596
5.	COD	--	16	16	16	16
6.	BOD	3.0 mg/L for outdoor bathing	<2	<2	<2	<2
7.	Total Alkalinity	200/600	208	208	220	208
8.	Phenolphthalein Alkalinity	--	20	8	4	8
9.	Chloride	250 /1000	84	100	124	138
10.	Fluoride	1.0 /1.5	0.051	0.063	0.075	0.046
11.	TKN	--	1.68	2.24	2.24	2.24
12.	Ammonical Nitrogen, NH ₃ -N	0.5/0.5	0.56	1.12	1.12	1.12

13.	Nitrate Nitrogen, NO ₃	45	0.064	0.042	0.085	0.057
14.	Nitrite Nitrogen, NO ₂	--	0.031	0.045	0.392	0.527
15.	Total Nitrogen	--	1.77	2.33	2.72	2.82
16.	Dissolved Phosphate, as PO ₄	--	0.019	0.023	0.056	0.134
17.	Total Phosphate, as PO ₄	--	0.05	0.06	0.125	0.412
18.	Sulphate	200/400	69	78	59	57
19.	Hardness as CaCO ₃	200/600	228	240	248	244
20.	Calcium as Ca	75	48	49	52	53
21.	Magnesium	30/100	26	28	28	27
22.	Sodium, Na	--	67.8	74.2	81.9	87.9
23.	Potassium, K	--	5.6	5.9	6.3	9.5
24.	Boron	0.5	BDL	BDL	BDL	BDL
25.	Cu	0.05/1.5	BDL	BDL	BDL	BDL
26.	Cd	0.003	BDL	BDL	BDL	BDL
27.	T.Cr	0.05	BDL	BDL	BDL	BDL
28.	H Cr	--	BDL	BDL	BDL	BDL
29.	Iron	0.3	0.288	0.39	0.158	0.037
30.	Mn	0.1/0.3	BDL	BDL	BDL	BDL
31.	Ni	0.02	BDL	BDL	BDL	BDL
32.	Pb	0.01	BDL	BDL	BDL	BDL
33.	Zn	5/15	BDL	BDL	BDL	BDL
34.	% Sodium	--	39	40	41	43
35.	SAR	--	2.0	2.1	2.3	2.5
36.	Total Coliform, MPN/100 ML	500 MPN for outdoor bathing	4.5	11	12	5.5

37.	Faecal Coliform, MPN/100 ML	--	<1.8	4.5	4.5	1.8
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All values are in mg/L except pH, SAR, TC, FC & %Na.

In India, CPCB has identified water quality requirements in terms of a few characteristics, known as primary water quality criteria. Further, Bureau of Indian Standards has also recommended water quality parameter for different uses in the standard IS 2296:1992. Each water use demands specific quality need. Therefore, to set the standard for the desire quality of a water body, it is essential to identify the uses of water in that water body. In India, the Central Pollution Control Board (CPCB) has developed a concept of *designated best uses of Water*. According to this, out of the several uses of water of a particular body, the use which demands highest quality is termed its *designated best use*.

In light of above, the water quality criteria **A** and its designated best use is **Drinking Water Source without conventional treatment but after disinfection**, which demands highest quality of water has been considered in the present case.

Compliance status with respect to Designated Best uses of water – A Class

S.No	Criteria for A Class DBU	AndanKoil Check Dam, Upstream of Karur town	NH44 Madurai bypass bridge	Thirumanilayur at right bank	Sanapiratti at right bank
1.0	Total Coliform MPN/100ml shall be 50 or less	Complied with	Complied with	Complied with	Complied with
2.0	pH between 6.5 and 8.5	Complied with	Complied with	Complied with	Complied with
3.0	Dissolved Oxygen 6mg/L or more	Complied with	Complied with	Complied with	Complied with
4.0	Biochemical Oxygen Demand 5 days 20 °C, 2mg/L or less	Complied with	Complied with	Complied with	Complied with

But in the NGT Order dt.:15th December, 2021 says “Steps to be taken to make the water to the potable level”, therefore the drinking water Standards notified by BIS has also been considered for data interpretation of river Amaravathy water quality.

From the Analytical Test Data presented above, it is inferred that

pH: The pH of the river water along Karur stretch fluctuates from 7.05 to 7.3. Thus the acidity and alkalinity balance of the river water along the Karur stretch is not disturbed and complying with the standard of potable water.

DO: The dissolved Oxygen of the river water along Karur stretch fluctuates from 6.0 to 6.8 mg/L. DO is more than 5.0 mg/L at all locations. It shows that the health of the river is maintained.

Total Dissolved Solids (TDS): The TDS of the river water along Karur stretch fluctuates from 512 to 612 mg/L. TDS follows the increasing trend towards downstream and not in acceptable value of 500 mg/L but is within permissible value of 2000 mg/L. This may be due to the natural phenomena of geological terrain of the river bed.

Fixed Dissolved Solids (FDS): The FDS of the river water along Karur stretch ranges from 492 to 596 mg/L. FDS follows the increasing trend towards downstream.

Bio-Chemical Oxygen Demand (BOD): BOD of the river water along Karur stretch is below the detection level. BOD is less than 3.0 mg/L at all four location. It indicates that the organic load in the river is not significant.

Nitrate Nitrogen – NO₃-N: The Nitrate level ranges from 0.042 to 0.085. Nitrate along the stretch is not in significant level and is within the acceptable range.

Chloride: The chloride level ranges from 84 to 138 and is within the acceptable range. Even though the level is not significant but follows the increasing trend towards the downstream.

Fluoride: The Fluoride level ranges from 0.046 to 0.075 and is within the acceptable range.

Hardness: The hardness of river water varies from 228 to 248 mg/L. Slightly more than the acceptance level of 200 mg/L but well within the permissible value of 600 mg/L. The value indicates that the river water is moderately Hard water.

Heavy metals: All heavy metals except Iron are below detection level. Iron level in the river stretch is complied with the Standards and marginally exceeds in one location.

Faecal Coliform: is a specific indicator of faecal contamination originating from human or animal wastes and is an important indicator of water quality – especially in waters where sewage or slurry is discharged. Presence of Faecal Coliform in the river water shows the contamination of sewage.

The quality of river water at all four locations is meeting with the BIS drinking water Standards except for the parameters TDS, FDS & Hardness. These two parameters TDS & Hardness are not within the acceptable range but are in permissible range. An increase of 100 & 16 mg/L and 19.5% & 7% is observed in case of TDS & Hardness respectively. The marginal increase may be due to the characteristics of local terrain.

The quality of river water is meeting the requisite standards in spite of six discharges of raw sewage may be due to the following reasons;

- In the river, scanty flow was observed and follows a small stream.
- The quantity of sewage discharge is less and percolates locally

- Because of that the discharge of sewage is not getting mix up with the river water
- But during flood or full flow, the sewage may get mix up, contaminates the river water and will have impact on the quality of river water.

The quantity of sewage discharge is not sufficient enough either to flow through the river or to get mix up with river water as stated above. Because of this reason, the river water is meeting the requisite Standards in spite of discharge of untreated sewage.

5.2 Inspection of the industries:

The joint committee inspected two industries located within 500 m from the river bed namely

1. M/s. Atlas Processing Mills, 1. M/s. Atlas Processing Mills, Sivasakthi Nagar, Periyandankoil Post, Karur
2. M/s. Navarang Dye Works, Village Sanapiratti, Village Narikkattiyur, S . Vellalapatty post, Karur – 639 004

The joint committee examined the Zero Liquid Discharge (ZLD) system for its adequacy.

The ZLD system at M/s. Atlas Processing Mills consists of Effluent Treatment Plant, RO system, MEE, ATFD, Filter press and Decanter. ETP consists of Receiving tank, Flocculation tank, Primary Clarifier, Aeration tank, Secondary Clarifier, Colour removing treatment, Dual Media filter, Filter Press, Decanter and Sludge Drying Beds. The reject management system consists of 4 stages RO system, Multi Effect Evaporators (4 effects), Agitated Thin Film Dryer (ATFD) and Solar Evaporation Pond (SEP). From the operational parameters DO & MLSS of Aeration tank, the Joint Committee assessed the performance of Activated Sludge Process. From the Flow, TDS value and colour of reject of each stage of RO System and MEE and salt collection at ATFD, the joint committee assessed the

performance of ZLD system. The treated effluent (RO permeate and MEE condensate) is recycled. The recovered salt to the tune of 1.5 TPD is packed in Poly bag and disposed off in M/s. Tamilnadu Waste Management Ltd., Viruthunagar for safe disposal. Thus, the unit is complying with ZLD system. Since there is no discharge of treated effluent, sample of final treated effluent could not be collected. vital parameters of ZLD system are placed below;

System		Flow (L/Hr)	TDS (mg/L)
RO stage 1	Feed	36,000	5500
	Permeate	24,000	230
	Reject	12,000	10500
RO stage 2	Feed	8,000	10500
	Permeate	4,000	400
	Reject	4,000	19000
RO stage 3	Feed	4,000	19000
	Permeate	2,250	500
	Reject	1,750	38000
RO stage 4 (or) nano filter system	Feed	6000	38000
	Permeate	2400	600
	Reject	3600	58000
MEE	Feed	2000	58000
	Condensate	3800	250
	Reject	200	315000
ATFD	Feed	500	315000
	Salt generation	80 Kg /hour	-

The ZLD system at M/s. Navarang Dye Works, Sanapiratti village consists of Effluent Treatment Plant, RO system, MEE, ATFD, Filter press and Decanter. ETP consists of Collection tank, Primary Clarifier, Aeration Tank, Secondary Clarifier, Tertiary Clarifier, Treated Water storage tank, Filter press and Sludge drying beds. From where, after Ultra filtration, the treated water fed into RO

system of 3 stages, MEE, ATFD and SEP. The RO permeate and MEE condensate is recycled. Whereas the recovered salt is packed in poly bags and disposed off in M/s. Tamilnadu Waste Management Ltd., Viruthunagar for safe disposal. From the operational parameters DO & MLSS of Aeration tank, the Joint Committee assessed the performance of Activated Sludge Process. From the Flow, TDS value and colour of reject of each stage of RO System and MEE and salt collection at ATFD, the joint committee assessed the performance of ZLD system. Since there is no discharge of treated effluent, sample of final treated effluent could not be collected. vital parameters of ZLD system are placed below;

System		Flow (L/Hr)	TDS (mg/L)
RO stage 1	Feed	15000	9120
	Permeate	10000	940
	Reject	5000	19700
RO stage 2	Feed	6000	19700
	Permeate	3000	690
	Reject	3000	34700
RO stage 3	Feed	3500	34700
	Permeate	1500	1060
	Reject	2000	46900
MEE	Feed	3000	46900
	Condensate	2000	400
	Reject	600	170000
ATFD	Feed	200	170000
	Salt generation	60 Kg/Hour	-

Both the units are having valid consent from TNPCB. Full technical details of the treatment system are placed at Annexure – 7 & 8 respectively.

5.3 Common Effluent Treatment Plant (CETPs):

The joint Committee inspected two CETPs located within 500 m from the river bed namely

1. M/s Karur Andankoil Pollution Control Ltd., S.F No. 1812, Andankoil West Village, Karur Taluk,
2. M/s Amaravathy Pollutech Ltd., Andankoil East Village, Karur Dt Karur District.

Both CETPs found closed. Sludge is packed in poly sacks and kept in open yard within the CETP premises. Leachate collection facilities are provided. Witnessed the removal of recovered sludge for co-processing in cement kilns was under progress. It is reported that all the eight CETPs in the area are closed and not in operation at present. Disposal of recovered sludge is under progress in phased manner depends on the co-processing capacity. The CETP federation has reported that the disposal of entire recovered sludge will be safely disposed off for co-processing within six months time. The status of CETP is placed below;

CETP Sludge Accumulated/Disposal details as on 12/02/2021

Sl. No.	Name of the CETP and address	Number of member units	Quantity of sludge stored in Tonnes	Status of storage
1.	M/s Karur Vanchi Dyeing Enviro Tech Ltd., S.F No.15/2, Balambalpuram, Karur	23	Nil	-
2.	M/s Karur Andankoil Pollution Control Ltd., S.F No. 1812, Andankoil West Village, Karur Taluk	19	2497	Disposal of sludge for Co Processing is in progress. So far 1500 T disposed

3.	M/s Karur Karuppampalayam Enviro Tech Ltd., Karuppampalayam, Karur.	48	4507	Stored in open land in PVC bags
4.	M/s Karur Thiruvai Dyeing Enviro Ltd., Thirumanilayur, Karur	55	9434	Stored in open land in PVC bags
5.	M/s Karur Sukkaliyur CETP Company Ltd., Sukkaliyur, Karur	64	8461	Stored in open land in PVC bags
6.	M/s Karur Taluk Dyeing & Bleaching ETP Co., Ltd., Arugampalayam, Karur	20	4433	Stored in open land in PVC bags
7.	M/s Karur Sellandipalayam Pollution Control Ltd., T.Sellandipalayam, Karur	118	5664	Stored in open land in PVC bags
8.	M/s Amaravathy Pollutech Ltd., Andankoil East Village, Karur	44	4400	Disposal of sludge for Co Processing is in progress. So far 4000 T disposed

Accumulated Quantity of CETP sludge as on 12/02/2021

Total accumulated Quantity	39396 T
Quantity of Sludge sent to M/s. Chettinad Cement Corporation Pvt Ltd for co-processing	5500 T
Balance Quantity as on 12/02/2021	33896 T

5.4 Sewage Treatment Plant:

Out of 48 wards in Karur Municipal area, 1 to 32 wards are having Under Ground Drainage systems (UGDs) except the newly developed areas. The sewage

(Black water) from the households in these wards are pumped to STP (15 MLD) for treatment. Vital parameters of Karur are summarised as below:

S.No.	Parameter	Number
1.	Population	2,41,458
2.	Total Households	67436
3.	Water supply	119 LPCD
4.	Total water supply	28.84 MLD
5.	Sewage generation	23.07 MLD
6.	Black water generation	7.5 MLD
7.	Grey water generation	15.57 MLD
8.	Sewage reaching STP	7.5 MLD

From the above table, the committee has observed that Black water only reaches the STP. 35.5% of Sewage reaches the STP and remaining 64.5% ie., 15.57 MLD of sewage finds its own way and partly discharged into River Amaravathy.

The 15 MLD Sewage Treatment Plant in Karur, works based on extended aeration technology. STP consists of collection-cum-equalisation tank, aeration tank, clarifier, maturation pond and Sludge Drying Beds. In order to assess the Environmental performance of STP, a sample of Inlet, Outlet and aeration tank have been collected and analysed the relevant parameters. Around 5.5 to 7.5 MLD of sewage is treated in the STP. Analytical Test Report of STP is placed at **Annexure - 9.**

The analytical test data is presented below;

Analytical Test Data of STP

S. No.	Parameters	Inlet	Outlet	Standards for the discharge	Compliance status
1.	pH at 25 °C	6.68	7.02	6.5-9.0	Complied with
2.	TSS at 105°C	132	168	100	Not Complied
3.	Fixed Dissolved Solids	1284	1248	NN	NA
4.	BOD	15	38	30	Not Complied
5.	COD	144	232	NN	NA
6.	Ammonical Nitrogen, as NH ₃ -N	9.52	8.4	NN	NA
7.	Sodium Absorption Ratio (SAR)	3.4	2.4	NN	NA
8.	Residual Sodium Carbonate	1.06	0.805	NN	NA
9.	Total Coliform	7000	4900	NN	NA
10.	Faecal Coliform	3100	2200	<1000	Not Complied
	Aeration Tank - Dissolved Oxygen – Nil Mixed Liquor Suspended Solids (MLSS) – 0.1				

All Values are in mg/L except pH. NN – Not notified.

From the above Test Report, it is observed that the TSS, BOD and Faecal Coliform of treated sewage from STP are not meeting the required standards for the discharge.

pH: The acidity and alkalinity balance is not disturbed during the treatment process and further complied with the Standards for the discharge of sewage.

Total suspended solids (TSS): TSS has increased from 132 to 168 mg/L instead decreasing, not complying with the Standards for the discharge of sewage and also not meeting its own designed value of 50 mg/L. Sedimentation in equalisation tank and clarification of aerated water is not taking place in the clarifier. The increase in TSS may be due to the contribution from natural organic substances like Algae growth; this shows that the sewage finds its own way instead of undergoing the treatment.

Bio-Chemical Oxygen Demand (BOD): The Committee observed the low strength sewage in inlet ie., BOD of the inlet was 15 mg/L. But reported that the BOD of the sewage normally varies from 80 to 120 mg/L. The reason for the low value of BOD may be due to the secondary washings, since the sample was collected during the lean period ie., in the noon. The BOD has increased from 15 to 38 mg/L instead of decreasing and thus not only complying with the Standards for the discharge of sewage but also its own designed value of 20 mg/L. The increase in BOD may be due to the natural organic substances like Algae growth, this shows that the treatment is not taking place.

Faecal Coliform (FC): Faecal Coliform in the final treated sewage of STP was 2200 against the standards of 1000 MPN/100ml. Only 30% reduction is observed. The treatment system supposed to remove the harmful bacteria i.e, FC completely. Whereas the treatment system removed only 30%. Thus, it confirms that the partial/natural treatment is taking place in the STP.

DO & MLSS from Aeration tank: In order to ensure the effectiveness of operation of STP, sample from aeration tank for the parameter Dissolved Oxygen (DO) & Mixed Liquor Suspended Solids (MLSS) was collected. The analytical Test Report reveals that DO was nil against not less than 2.0 mg/L and MLSS was 0.1 against the value in between 3500 and 4000 mg/L. In absence of DO and MLSS, it is not possible to stabilize the Organic substances biologically.

Sludge Drying Beds: The joint committee did not find any accumulation of sludge in sludge drying beds during the inspection of STP.

In light of above, the joint committee has concluded that the sewage is just passing through the STP and partial treatment is taking place in its natural way. Operation of STP was not carried out professionally. The BOD of raw sewage will be around 300 mg/L in an average, whereas here it is around 100 mg/L only. One third of the reference value. The Analytical Test Report of repeated analysis of raw sewage confirms the same. The Joint Committee had a lengthy discussion on the same.

Irrigation water quality Classification: As per plan, the treated sewage from STP is supposed to be used for land application/irrigation and reported that the treated sewage is used for irrigation. In view of this, the following parameters are analysed to ensure its safe use for irrigation and confirm that any discharge from any of the Textile processing units is getting mix up with the sewage.

S.No.	Parameter and its value	Classification	Suitability
1.	pH - 7.02	Excellent	Suitable for irrigation
2.	SAR - 2.4	Fair	
3.	RSC - 0.805	Excellent	

The partially treated sewage from the STP is discharged into nearby irrigation Channel. From there, the partially treated sewage is used for irrigation.

5.4.1 Gaps observed in STP:

- Oil and Grease trap and its allied facilities namely collection, storage and safe disposal mechanism for scum are not in place.
- Bar Screen Chamber and its allied facilities namely collection, storage and safe disposal mechanism for grit and floatables are not in place.
- Chlorination or UV radiation or any other disinfectant mechanism is not in place for safe disposal of treated sewage so that Faecal Coliform in the final treated waste water is absent.
- Failed to maintain the desired level of Dissolved Oxygen and Mixed Liquor Suspended Solids (MLSS) in the Aeration tank.

5.4.2 Action proposed to be taken against STP:

The operator of STP may be directed to operate the STP professionally based on the operational parameters as referred above so as to achieve the standards for the discharge of treated sewage.

The raw sewage from the balance area (16 wards), newly developed areas and the adjacent Andankoil village Panchayat area which are not covered under the UGD system is discharged into the River Amaravathy (Left bank) and Storm water drain (Right bank of the River). The TNPCB has directed the Karur Municipality to provide STP with UGDS covering the balance municipal area and stop discharging the untreated sewage. The Hon'ble Madurai Bench of Madras High Court has also given direction in this regard to Karur Municipality vide order dt. 28/09/2016 in WP(MD)No 15295 of 2012. But still untreated sewage from part of

Karur area is discharged directly into the River Amaravathy (Left bank) and Storm water drain (Right bank) for want of land to establish STP.

5.5 Solid Waste Management:

Karur Municipality consists of 48 wards spread over 53.26 Sq. Km. The population of Karur Municipality is around 2.5 lacs. The scenario of Solid Waste generation in Karur Municipality is presented below;

Category	Numbers	Wet Waste, TPD	Dry Waste, TPD	Total, TPD
Households	67426	41	11	53
Commercial establishments	13766	4	7	11
Industrial units	215	-	3	3
Bulk generators	77	10	2.5	12.5
Total	81484	55	23.5	78.5
Inert & C & D waste	As above	-	3	3
Grand Total				81.5

5.5.1 Micro Compost Centre MCCs: Wet (Bio-gradable) waste from households are collected at door steps in a segregated at source manner on daily basis. The same is transported to the nearby Micro Compost Centre (MCC) for treatment. There are twelve MCCs in Karur Municipality area. The capacity of each centre varies from 3 to 5 TPD. Each centre will have 14 to 16 pits. Thus 41 TPD wet waste is treated in twelve MCCs.

On receipt of wet waste at MCC, non-bio degradable items are removed manually. The screened materials are shredded in mechanical shredder. While

shredding the wet waste, Effective Microorganisms (EM) ball will be introduced. The shredded wet waste is fed into the compost pit layer by layer per pit per day. Seven pits will be chosen in first cycle and will be fed for 3 rounds. Thus 21 days will take to complete the first cycle. Remaining 21 days the pit will be left for composting. Periodic turning of waste during compost process is being carried out manually by heaping from one end to another end. In the second cycle, the feeding will be carried out in the remaining seven pits for twenty-one days in three rounds. On completion of 42 days, the compost will be ready and sold at the centre itself to the farmers on first come first basis. Now, first set of seven pits will be ready for feeding. Thus the cycle repeats and goes on.

Gaps observed:

Failed to

1. mix the bulk agent namely garden waste, Farm yard Waste, Coconut fibre (Peat), wood chips, wooden pieces, Straw, shredded coconut shells, plant cuttings, Mulch, husk, bran and saw dust, of suitable proportion, along with the shredded wet waste before feeding into the compost pit in order to maintain the particle size and Oxygen level.
2. Establish suitable rotary screen to screen the compost and non-composted materials.
3. The bio degradable materials which is not fully composted may be recycled as a bulking agent
4. Provide hard surface pad (Concrete floor) to dry the compost
5. Provide shed of adequate capacity to store the compost
6. Maintain the stock register for the management of Compost stock

5.5.2 Bio-Methanation Plant, 5 TPD: Food, Vegetable and Fruit waste are transported to Bio-methanation plant. The waste is checked for any other non bio

degradable waste manually and handpicked. The bio degradable waste is grinded into slurry form and fed into the digester. The bio-gas so generated is used to operate the machineries and lighting established in Integrated Solid Waste Management facility.

Gaps observed: Bio gas was stored in the Bladder instead of the gas holder.

A puncture was noticed in the bladder holding the biogas.

5.5.3 Bulk Waste: The Bulk waste generated from 64 Kalyana Mandapams, 10 Hotels and 3 Educational Institutions are treated in 18 Onsite Compost Centre (OCC) on their own. 34 bulk waste generators use a common facility.

5.5.4 Dry Waste: The dry waste is collected at door step twice in a week. Dry waste so generated from Karur Municipal area is transported to the Integrated Solid Waste Management facility in the village Arasu Colony. There, the dry waste is screened for recyclable and non recyclable waste manually. The waste namely coconut shells, Paper, Glass, Plastic, iron items are hand-picked and sold off to scrap dealer. The non recyclable waste items namely polythene bags, rubber, tyres and cloths are shredded, baled and forwarded to cement industries for co-processing. The non usable items, inert are stored along with C & D waste in Arikkapalayam yard at Salem bye pass road and used for land filling.

5.5.5 Legacy waste: The legacy waste accumulated over the period of 30 years spread over 13.68 acres in the Village Panchamadevi. The accumulated waste is estimated to be around 1,41,731 m³ and the legacy waste processed so far is 1,27,558 m³ on the day of inspection. Around 86% of legacy waste has been processed so far. Reclamation of dumping yard and Bio-mining of legacy waste is under progress.

Bio remediation of the legacy waste is carried out by adopting coning compost. The stabilised waste is screened mechanically by adopting 3 stages & SCADA controlled Trommels. The recyclable material so recovered is sold off to scrap dealer and RDF is forwarded for co-processing. Bio-earth is sold off to farmer as manure. Inert is forwarded to C&D waste yard at Arikampalayam, Salem Bye pass road for safe storage and land-filling as per the request.

6.0 Summary of Joint committee findings based on the Field observations:

- I. All 68 textile processing units in Karur area have established ZLD system and no discharge of trade effluent either treated or untreated is allowed.
- II. The joint committee surveyed the eleven km Karur stretch of River Amaravathy starting from Check Dam, Andankoil -Upstream of Karur town to Sanapiratti village near Old Dindugal Water supply scheme – Downstream of Karur town and did not notice any illegal or unauthorised untreated discharge being made by any of the industries into the River Amaravathy.
- III. From the Analytical Test Report of river water, the joint committee has inferred that the river is meeting the Designated Best Use criteria notified by CPCB. From the parameters namely Colour, TDS, FDS, BOD and heavy metals, the joint committee is ruling out the contamination of any trade effluent. The presence of Faecal Coliform in the river water reveals that there is the possibility of inception of Domestic effluent.
- IV. The Test Report of river water revealed that the Amaravathy River water is fit for drinking use with conventional treatment and bathing purposes in Karur stretch.

- V. The joint committee has inspected the site in question and made the enquiry. On enquiry, the joint committee came to know that the canal was made to partially divert the river water from one bank to another bank to the temple padikattuthurai (Bathing Ghat), by the nearby temple trust on occasion of Kumbhabhishekam festival performed at Vanjileeswar Temple, Brama thertham Road, Karur during last week of Nov-2020 for the convenience of devotees. Circumstantial evidences substantiate the above claim and Committee did not find any abnormalities in that area other than the above stated facts.
- VI. In light of above, the joint committee did not assess any Environmental Compensation for damage caused on account of any alleged illegal activity resulting in pollution to the water in the river Amaravathy.
- VII. All CETPs in Karur area were closed way back in 2011-2012. At present none of the CETP is in operation. Only removal of accumulated sludge stored in polythene bags is going on depends on the capacity of co-processing unit.
- VIII. All the units having ETP alone and failed to establish the ZLD system were closed way back in 2011-2012. Therefore, no standalone ETP is in operation.
- IX. Out of 48 wards in Karur Municipality limit, Ward no. 1 to 32 are covered under UGD scheme except the newly developed areas. The sewage (Black water) from these areas is channelized to Sewage Treatment Plant (STP), where it is treated partially. The treated sewage is discharged into the nearby irrigation canal. From the canal, the treated sewage is utilised for irrigation by the farmers.
- X. In case of balance 16 wards and newly developed area, the sewage is directly discharged into the River Amaravathy (Left bank) and storm

water drain (Right bank). It is reported that from storm water drain, it is utilized for irrigation by the nearby farmers. All storm water drain on right bank, has provision of shutters to discharge the sewage into River Amaravathy for emergency use. It is reported that during flood time only the shutter will be opened.

- XI. Wet waste from the households in Karur Municipality is collected at door step in a segregated at source manner on daily basis. Wet (Bio-degradable) waste is collected daily. The wet waste is shredded and composted in twelve Micro Compost Centres. Further improvement is required.
- XII. Food, Vegetable and fruit waste are grinded into slurry form and fed into Bio-Methanation plant for Anaerobic digestion to produce bio-gas. The bio gas so produced is used in operating the equipment and lighting installed at Integrated Solid Waste Management facility.
- XIII. Bulk waste generators are treating their waste on their own.
- XIV. Dry waste is collected twice in a week. Fresh dry waste is transported to Integrated Solid Waste Management Facility for materials recovery by handpicking and gravity separation through mechanical screening. Recyclables are handpicked and sold off to scrap dealers. Non recyclables and combustibles (RDF) is forwarded for co-processing. Inert is forwarded to C&D waste storage yard for safe storage and disposal for land filling.
- XV. Bio-mining of Legacy waste is under process. But failed to provide pollution control measures and devices to check the fugitive and source emission

7.0 Suggestions of Committee:

The Joint Committee proposed following actions to be taken by Tamilnadu Pollution Control Board and Karur Municipality to prevent illegal discharges and inception of sewage & garbage into river Amaravathy:

TNPCB may be directed to

- Continue the constant and continuous vigil and monitoring mechanism of all water polluting industries in Karur area and ensure the Zero Liquid Discharge.
- Continue the constant vigil on Karur river stretch for any illegal discharges into the river Amaravathy by deploying patrolling in order to prevent any occasional discharge too.
- Continue the monthly monitoring of River Amaravathy and assess its quality for any deterioration.

Karur Municipality may be directed to

- stop discharging the untreated sewage into the river Amaravathy immediately and to take necessary steps to channelize the grey water from UGD covered area and sewage from uncovered UGD area to STP so as to treat the same
- Take sincere efforts to operate the Sewage Treatment Plant in a more efficient and scientific manner and should be managed professionally.
- take sincere efforts to operate the Micro Compost Pit in a more professional manner and make additional facilities to mix the bulking agent to the shredded wet (Bio-degradable) waste so as to maintain the particle size and

Oxygen level, hard surface Pad to dry the compost, Sieve to screen the compost & not fully converted compost, storage yard for storing the compost and the facility to recycle the not fully converted compost.

- to provide the hard surface pad for process & utility area & all approach roads and wind breaking walls to contain the fugitive emission at Bio-mining site.
- Create awareness among general public to keep the unsoiled polythene bags safe, storing it and hand over the same in bulk preferably in Bundle form to the sanitary workers so as to simplify the stress on its management.
- Develop Miyawaki forest as planned without fail in the reclaimed land to the tune of 13.68 acres, after completion of bio-mining.

By considering all the above facts, the Hon'ble National Green Tribunal may pass appropriate Order(s)/Direction(s) as deemed fit.



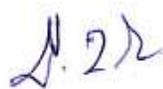
Revenue Divisional
Officer, Karur



P. Muthusamy
Superintending Engineer
PWD, WRD, Palani



Shri. I. Nakkiran
Municipal Engineer
Karur



District Environmental Engineer
Tamilnadu Pollution Control Board
District Environmental Office
Karur



S. Karthikeyan
Scientist C
Central Pollution Control Board
Regional Directorate, Chennai

Item No.03:**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI****Original Application No. 257 of 2020 (SZ)**

(Through Video Conference)

IN THE MATTER OF

Tribunal on its own motion-SUO MOTU Based on
The News item in the New Indian Newspaper, Dated
27.11.2020, “ A Cooum in the making in Karur?”.
Callousness of officials.”

...Applicant(s)

Versus

- 1)** The Chief Secretary to Govt. of Tamil Nadu
Govt. Secretariat, Fort St. George
Chennai, Tamil Nadu – 600009
- 2)** The Principal Secretary to Government,
Public Works Department,
Govt. Secretariat, Fort St. George
Chennai, Tamil Nadu – 600009
- 3)** Principal Secretary to Government
Health and Family Welfare Department
Secretariat, Fort St. George,
Chennai 600 009.
- 4)** The Secretary to Govt. of Tamil Nadu,
Department of Environment & Forests,
Govt. Secretariat, Fort St. George
Chennai, Tamil Nadu – 600009
- 5)** Additional Chief Secretary to Govt. of Tamil Nadu,
Municipal Administration and Water Supply Department,
Govt. Secretariat, Fort St. George
Chennai, Tamil Nadu - 600009

6) The Chairman,
Tamil Nadu Pollution Control Board,
No.76, Anna Salai, Guindy,
Chennai, Tamil Nadu – 600032

7) The District Collector,
Karur District,
Sh-874, First Floor Collector Office,
Karur, Tamil Nadu 639 007.
Chennai 600 001.

8) The Municipal Commissioner
Karur Municipality
Azad Road, Bunglaw Street,
Karur, Tamil Nadu 639 001.

9) The Chief Engineer,
P.W.D., W.R.O.,
Pollachi Region, Town Hall,
Coimbatore 641 001.

...Respondent(s)

Date of hearing: 15.12.2020.

CORAM:

HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

HON'BLE MR. SAIBAL DASGUPTA, EXPERT MEMBER

For Applicant(s): By Court

For Respondent(s): Sri. Dr. V.R. Thirunarayanan for R1to R5 , R7
& R9
Sri .C. Kasirajan through
M/s. Meena for R6
Sri. Srinivas through
Sri. Ponraj for R8

ORDER

1. The above case has been Suo Motu registered by this Tribunal on the basis of the news paper report published in the New Indian Express, dated 27.11.2020 under the caption **“A Cooum in the making in Karur?”**
2. It is alleged in the news paper report that effluent from dyeing units and industries in Karur area are polluting Amaravathi River to such an extent that it could soon become the second Cooum in the State. According to the news paper report, the Amaravathi River is one of the vital sources of water in Karur. It originates near the Manjampatti valley on the Kerala- Tamil Nadu border, and the longest tributary of the river Cauvery. It is having a total length of 282 Km long flows through Tiruppur, Karur and joins the Cauvery near Thirumukkudalur. The river is being polluted heavily as dyeing units, textile industries and other industries are releasing their trade effluents without any treatment directly into the river. Apart from this, the Municipality is also contributing their part by letting sewage into the river without proper treatment. Though, complaints were made to the authorities, they are not taking proper action regarding the same.
3. The Public Works Department (PWD), who is in charge of

maintaining the water bodies are also not keen in protecting the water bodies. It is also alleged in the news paper report that the industries are clandestinely making illegal canals into the river so as to discharge their untreated effluents without proper treatment which they are not expected to do.

4. It is not known as to who has given permission for such illegal activities and in spite of this being brought to the notice of the authorities, no steps were taken to remove the same as well. Further, the factories are dumping waste in that area which also causes lot of pollution and contamination of the river water. Municipality is also not taking keen interest in implementing the Solid Waste Management Rules, 2016 in its letter and spirit in that area.
5. On going through the allegations in the paper report, we are satisfied that there arises a substantial question of environment which requires the interference of this Tribunal for resolving the same. Time and again it is reiterated by the Hon'ble Apex Court and this Tribunal that there is a duty cast on the State Government and its Departments including the local bodies to protect the water bodies against encroachment and pollution as right to clean water and air is a part of Right to Life as enshrined under Article 21 of the Constitution of India and the responsibility to protect the environment under Article 48 (A) of

the Constitution of India. So, the matter is admitted

6. It is also brought to our notice that during 2012, there was a Writ Petition filed before the Hon'ble High Court of *Madras at Madurai Bench as W.P.(MD).No. 15295 of 2012 (Karur Mavatta Nilathadi Neer Pathugappu Maturm Sayakalival Pathikkapatta Vivasayigal Sangam Vs State of Tamil Nadu)* and the Hon'ble High Court by Judgement dated 28.09.2016, directed the respondents 1 and 2 who are State of Tamil Nadu and the Commissioner, Karur Municipality to stop the drainage/sewage water into Amaravathi River within Karur Municipal limit. However, despite the direction, conditions still continues is the allegations made in the report.
7. When the matter came up for hearing for admission today through Video Conference, Sri. Dr. V.R. Thirunarayanan represented respondents 1 to 5, 7 & 9, Sri .C. Kasirajan through M/s. Meena represented 6^h respondent and Sri. Srinivas through Sri. Ponraj represented 8th respondent. Service is complete.
8. In order to ascertain the genuineness of the allegations made in the paper report and action taken by the local body to resolve the issues, we feel it appropriate to appoint a joint committee comprising of **1)** the District Collector, Karur District, or a Senior Officer not below the rank of Assistant Collector or Sub

Divisional Magistrate deputed by the District Collector, **2)** a Senior Scientist from Central Pollution Control Board (CPCB), Regional Office, Chennai, **3)** a Senior Officer from the Tamil Nadu State Pollution Control Board as designated by its Chairman, **4)** a Senior Officer not below the rank of Superintending Engineer of Public Works Department and Water Resources Organisation (WRO) of that area, **5)** the Municipal Commissioner, Karur Municipality to inspect the area in question and submit a factual as well as action taken report, if there is any violation found, including assessment of environmental compensation for damage caused on account of any alleged illegal activity resulting in pollution to the water in the river Amaravathy.

9. The committee is directed to inspect the industries in that area and ascertain as to whether they are having proper effluent treatment discharge system and is there any illegal or unauthorised untreated discharge being made by any of the industries in that district to the Amaravathy river so as to cause the pollution of the river water,
10. The committee is also directed as to ascertain as to whether there is any illegal discharge of untreated sewage from the municipal area to the river.
11. The committee is also directed to ascertain the existence and

functioning of any Effluent Treatment Plant (ETP), Sewage Treatment Plant (STP) and requirement of a Common Effluent Treatment Plant (CETPs) in that area and its operation level as to whether it meets all the norms by testing the inlets and outlets of the effluents being treated by these units and if there is any violation found, what is the action proposed to be taken against such units.

12. The committee is also directed to ascertain as to whether Karur Municipality is complying with the provisions of the Solid Waste Management Rules, 2016 in its letter and spirit in disposing the waste generated including the sewage and whether there is any illegal discharge of such things into the river which causes pollution and whether the direction issued by the Principal Bench of National Green Tribunal in *O.A. No. 606 of 2018* have been complied with.
13. The committee is also directed to test the water quality of the river in respect of all criteria's including the presence of heavy metals, Total Coliform (TCL) and Fecal Coliform (FCL) apart from ascertaining the quality of water in the river and if there is any contamination found, ascertain the source and suggest the necessary steps to be taken for removing the contamination and make the water to the potable level.
14. The committee is also directed to suggest the proposed

actions to be taken against the erring units and on that basis; the regulating authorities are directed to take steps against such units so as to prevent such illegal activities being continued in that area.

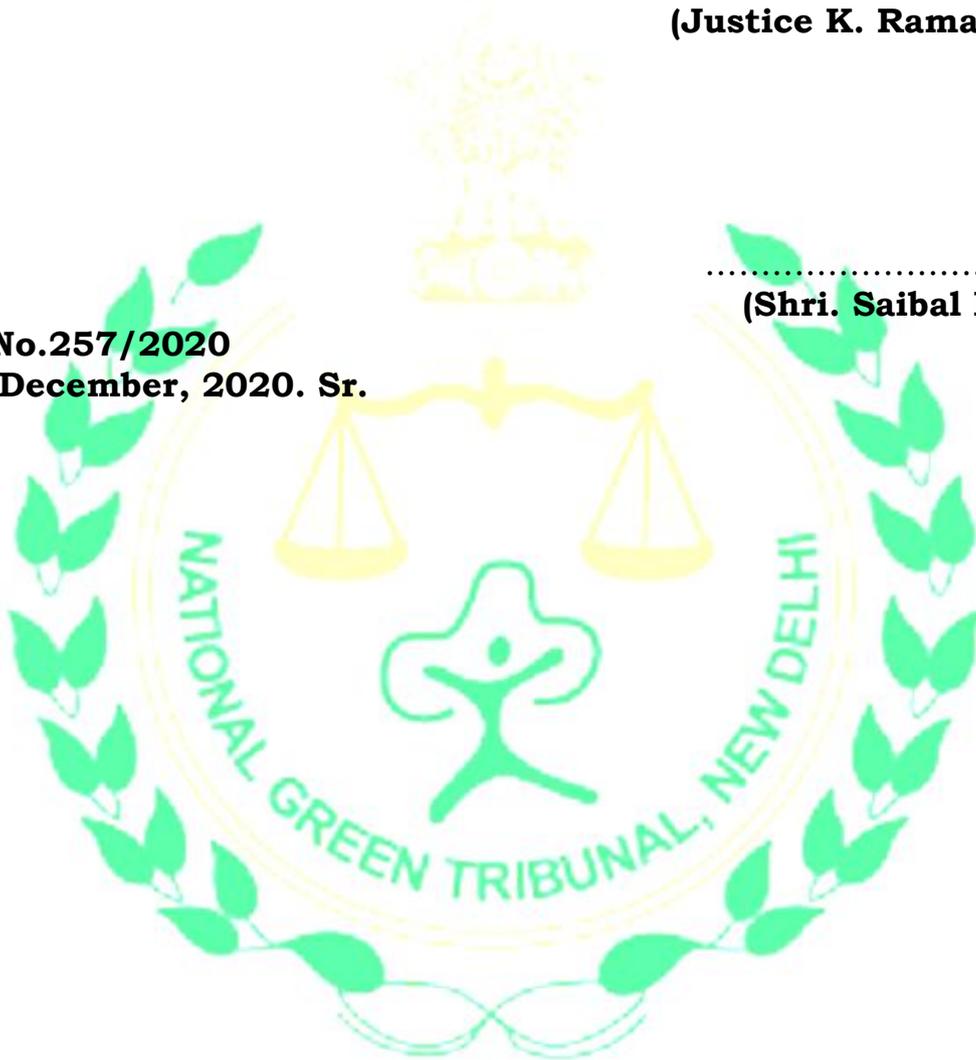
15. The Central Pollution Control Board (CPCB), Regional Office, Chennai will be the nodal agency for co-ordination and for providing all necessary logistics for this purpose.
16. The committee is directed to submit the report to this Tribunal on or before 22.02.2021 by e-filing in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF along with necessary hard copies to be produced as per rules.
17. The Registry is directed to communicate this order to the members of the committee and also to all the respondents immediately by e-mail along with the copy of the paper report and the gist of Suo – Motu proceedings with full cause title so as to enable them to comply with the direction and also to file their independent responses regarding the allegation in the paper report before the next hearing date without delay.

18. For appearance of parties and submitting their independent responses and also consideration of report, post on 22.02.2021.

.....J.M.
(Justice K. Ramakrishnan)

.....E.M.
(Shri. Saibal Dasgupta)

O.A. No.257/2020
15th December, 2020. Sr.



Item No.03:**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI****Original Application No. 257 of 2020 (SZ)**

(Through Video Conference)

IN THE MATTER OF

Tribunal on its own motion-SUO MOTU Based on
The News item in the New Indian Newspaper, Dated
27.11.2020, “ A Cooum in the making in Karur?”.
Callousness of officials.”

...Applicant(s)

Versus

- 1) The Chief Secretary to Govt. of Tamil Nadu
Govt. Secretariat, Fort St. George
Chennai, Tamil Nadu – 600009
- 2) The Principal Secretary to Government,
Public Works Department,
Govt. Secretariat, Fort St. George
Chennai, Tamil Nadu – 600009
- 3) Principal Secretary to Government
Health and Family Welfare Department
Secretariat, Fort St. George,
Chennai 600 009.
- 4) The Secretary to Govt. of Tamil Nadu,
Department of Environment & Forests,
Govt. Secretariat, Fort St. George
Chennai, Tamil Nadu – 600009
- 5) Additional Chief Secretary to Govt. of Tamil Nadu,
Municipal Administration and Water Supply Department,

Govt. Secretariat, Fort St. George
Chennai, Tamil Nadu - 600009

- 6) The Chairman,
Tamil Nadu Pollution Control Board,
No.76, Anna Salai, Guindy,
Chennai, Tamil Nadu – 600032
- 7) The District Collector,
Karur District,
Sh-874, First Floor Collector Office,
Karur, Tamil Nadu 639 007.
Chennai 600 001.
- 8) The Municipal Commissioner
Karur Municipality
Azad Road, Bunglaw Street,
Karur, Tamil Nadu 639 001.
- 9) The Chief Engineer,
P.W.D., W.R.O.,
Pollachi Region, Town Hall,
Coimbatore 641 001.

...Respondent(s)

Date of hearing: 22.02.2021.

CORAM:

HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

HON'BLE MR. SAIBAL DASGUPTA, EXPERT MEMBER

For Applicant(s): By Court

For Respondent(s): Sri. Dr. V.R. Thirunarayanan for R1to R5 , R7
& R9
Sri .C. Kasirajan through
Ms. S.M. Kothai Muthu Meenal for R6
Sri. Srinivas through
Sri. Ponraj for R8

ORDER

1. The above case has been Suo Motu registered by this Tribunal

on the basis of the news paper report published in the New Indian Express, dated 27.11.2020 under the caption **“A Cooum in the making in Karur?”**

2. It is alleged in the news paper report that effluent from dyeing units and textile industries in Karur area are polluting Amaravathi River to such an extent that it could soon become the second Cooum in the State. According to the news paper report, the Amaravathi River is one of the vital sources for water in Karur. It originates near the Manjampatti valley on the Kerala- Tamil Nadu border, and the longest tributary of the river Cauvery. It is having a total length of 282 Km long flows through Tiruppur, Karur and joins the Cauvery near Thirumukkudalur. The river is being polluted heavily as dyeing units, textile industries and other industries are releasing their trade effluents without any treatment directly into the river. Apart from this, the Municipality is also contributing their part by letting sewage into the river without proper treatment. Though, complaints were made to the authorities, they are not taking proper action regarding the same.

3. As per order dated 15.12.2020, this Tribunal was satisfied that there arises a substantial question of environment which requires the interference of this Tribunal for resolving the same. So the matter was admitted and the Joint Committee was

constituted to go into the issue and to submit a report to this Tribunal and posted the case to today for that purpose.

4. When the matter came up for hearing today through Video Conference, Sri. Dr. V.R. Thirunarayanan represented respondents 1 to 5, 7 & 9, Sri .C. Kasirajan through Ms. S.M. Kothai Muthu Meenal represented 6^h respondent and Sri. Srinivas through Sri. Ponraj represented 8th respondent. So, service is complete.
5. The counsel appearing for Central Pollution Control Board (CPCB) namely, Smt. P. Jeyalakshmi submitted that the inspection has been conducted and water samples have been taken and they want six weeks time for submission of the report.
6. The learned counsel appearing for the 8th respondent submitted that the Hon'ble Madras Court of Madurai Bench has already taken a Suo-Motu matter as *W.P.17508/2020* where not issued is also in respect of the same matter on the basis of the same newspaper report and that is pending before that Court. It is not known what is the nature of proceedings initiated Suo-Motu by the Hon'ble Madras High Court at Madurai Bench. However, that will not prevent this Tribunal from proceeding with the matter and if at all, this Tribunal must be careful while issuing directions as it should not go contrary to the directions issued

by the Hon'ble High Court of Madras at Madurai Bench in respect of the same matter. We have only appointed a Joint Committee to go into the issue and submit a report and any further direction will be depending upon the report to be received from the Joint Committee.

7. The counsel appearing for the 8th respondent is directed to furnish the details of the Writ Petition pending before the Hon'ble High Court of Madras at Madurai Bench which was said to taken on the basis of the same newspaper report and the directions issued therein and reports if any, submitted by any of the authorities before the Hon'ble High Court of Madras at Madurai Bench and whether any directions have been issued on the basis of the report submitted by the authorities in that matter before the next hearing date, so that the orders and the directions issued by the Hon'ble High Court of Madras at Madurai Bench can be considered while disposing the matter on the basis of the report to be received from the Joint Committee appointed by this Tribunal.

8. In the meantime the official respondents including the Municipality against whom certain allegations have been made are directed to submit their independent response and the steps taken by them for avoiding pollution to Amaravathi River from their part before the next hearing date.

9. The committee as well as the official respondents are directed to file the report as well as independent responses on or before 12.04.2021 by e-filing in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF along with necessary hard copies to be produced as per rules.
10. The Registry is directed to communicate this order to the members of the committee, Central Pollution Control Board (CPCB) as well as the official respondents immediately through e-mail, so as to enable them to comply with the direction and for filing their independent response to the allegations made in the application as directed by this Tribunal.
11. For appearance of parties and for completion of pleading and also for consideration of report, post on 12.04.2021.

.....J.M.
(Justice K. Ramakrishnan)

.....E.M.
(Shri. Saibal Dasgupta)

O.A. No.257/2020
22nd February,2021. Sr.

Item No.02:

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

Original Application No. 257 of 2020 (SZ)

(Through Video Conference)

IN THE MATTER OF

Tribunal on its own motion-SUO MOTU Based on
The News item in the New Indian Newspaper, Dated
27.11.2020, “ A Coom in the making in Karur?”.

Callousness of officials.”

...Applicant(s)

Versus

The Chief Secretary to Govt. of Tamil Nadu
Chennai and others.

...Respondent(s)

Date of hearing: 12.04.2021.

CORAM:

HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

HON'BLE MR. Dr. K. SATYAGOPAL, EXPERT MEMBER

For Applicant(s): By Court

For Respondent(s): Sri. Dr. V.R. Thirunarayanan for R1 to R5 , R7
& R9
Sri .C. Kasirajan through
Ms. D. Ashwini for R6

ORDER

1. The above case has been Suo Motu registered by this Tribunal
on the basis of the news paper report published in the New

Indian Express, dated 27.11.2020 under the caption “**A Cooum in the making in Karur?**”

2. It is alleged in the news paper report that effluent from dyeing units and textile industries in Karur area are polluting Amaravathi River to such an extent that it would soon become the second Cooum in the State.
3. Further, it is also mentioned in the report that apart from the industrial effluents, untreated sewage is also discharged into the river and thereby karur Municipality is also contributing their part in polluting the river. Though the Public Works Department is in-charge of the water bodies, they are not keen in protecting the water bodies.
4. It is also seen from the newspaper report that the Hon'ble High Court of Madras in **W.P. (MD). No. 15295 of 2012** by Judgement dated **28.09.2016** directed the State of Tamil Nadu and the Commissioner, karur Municipality to stop the discharge of sewage water to the Amaravathi River within karur Municipal limit and in spite of that direction, no effective steps have been taken by them.
5. Since this Tribunal was satisfied that there arises a substantial question of environment on the basis of the newspaper report, after admitting the matter, appointed a Joint Committee and directed the Joint Committee to submit a report and the case

was originally posted to 22.02.2021 for that purpose. On 22.02.2021, at the request of the committee members, the case was adjourned to today for filing the report by the committee.

6. When the matter came up for hearing today through Video Conference, Sri. Dr. V.R. Thirunarayanan represented respondents 1 to 5, 7 & 9, Sri .C. Kasirajan through Ms. D. Ashwini represented 6^h respondent.
7. We have received the statement submitted by the Commissioner, Karur Municipality in the form of a report, wherein they have admitted that there is lack of facilities available for treating the sewage that has been generated in Ward Nos. 33 to 48 of that Municipality. Though requests have been made to the Public Works Department for allotting certain areas for this purpose for the establishment of Sewage Treatment Plant (STP), no reply has been received from them so far.
8. As regards, the implementation of the Solid Waste Management Rules, 2016 is concerned, they have commenced Bio-Mining on 22.02.2020, and it is in the process and they have almost completed 80% of the disposal of accumulated waste. Though they have admitted in their report that there is already an existing Sewage Treatment Plant (STP) with a capacity of 15 MLD, but they are getting sewage for treatment to the extent of only 6.50 MLD which is being used for collecting and treating

the sewage generated from Ward No. 1 to 32 of that Municipality. But they have not mentioned anything about Ward No. 33 to 48 which were earlier part of two independent local bodies which were merged with the karur Municipality as early as on 2011. They have not mentioned as to whether any steps had taken by them to have the Underground Sewage facility for these wards to connect the sewage water to the existing STP, so that it can be used at its optimum level which will to some extent resolve the issue.

9. They have not mentioned about even such feasibility has been considered by them in the report and they are only now intending to have a new STP for this area for which they are not having any land and they want some assistance from the Public Works Department (PWD) for this purpose. Under Rule 12 of the Solid Waste Management Rules, 2016, the District Collector has got some responsibility to supervise the implementation of the Solid Waste Management Rules in their respective area and if it is not being implemented in its letter and spirit, they are also expected to give certain guidelines as to how that have to be implemented effectively and render all help in respect of locating the area for providing waste management facility or for providing establishment of STP etc. It is not known though such a situation is prevailing in that Municipality since

2011, what are the effective steps taken by the District Administration in this regard.

10. The District Administration is also directed to file an independent report regarding the steps taken by the District Collector as is responsible under the Solid Waste Management Rules, 2016 and whether if there is any scheme launched for protecting the Amaravathy River and if so, what is the stage of its implementation of that scheme and what is the nature of action taken by the District Administration against the persons who are responsible for discharging untreated industrial effluents and also sewage into the river causing contamination of River water.

11. We have also received an e-mail from the Central Pollution Control Board (CPCB) seeking four weeks time for submitting the report.

12. So considering the circumstances, we feel that some more time can be granted to the committee as well as well as the other respondents to submit their report as well as their independent response regarding the allegations made in the newspaper report and action taken from their side on or before 25.05.2021 by e-filing in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF along with necessary hard copies to be produced as per rules.

13. The Karur Municipality is also directed to file a further status report regarding the implementation of the Solid Waste Management Rules, 2016 and also study if any conducted regarding the feasibility mentioned by this Tribunal in the earlier paragraphs to resolve the issue in respect of the Ward No. 33 to 48 of Karur Municipality before the next hearing date.
14. The Registry is directed to communicate this order to the members of the committee, as well as the official respondents including the Karur Municipality and also to the Chief Secretary and the Principal Secretaries of Environment, Public Works Department (PWD) and Water Resources Organisation (WRO) immediately through e-mail, for their information and also for compliance.
15. For completion of pleadings and also for consideration of report, post on 25.05.2021.

.....J.M.
(Justice K. Ramakrishnan)

.....E.M.
(Shri. Dr. K. Satyagopal)

O.A. No.257/2020
12.04.2021,2021. Sr.



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

CPCB/RDC/NGT257(2020)/RAMry/20-21/11-17

29th January, 2021

ORDER

Subject: Constitution of Joint Committee as per the Order of Hon'ble NGT., Southern Zone, Chennai in the matter of O.A. no.:257 of 2020

Ref.: 1. Original application no.: 257 of 2020 before the Hon'ble NGT, Southern Zone, Chennai
2. Hon'ble NGT, Southern Zone, Chennai Order dated 15.12.2020 in OA no.: 257 of 2020

In the matter of O.A No. 257 of 2020 against the "A Cooum in the making in Karur?", before Hon'ble NGT, Southern Zone, Chennai, the Hon'ble Tribunal vide Order dt 15th December 2020 directed to constitute a Joint Committee comprising of officials from the District Collector or his nominee, TNPCB, PWD(WRO), The Municipal Commissioner, Karur and CPCB.

In view of above, CPCB, Regional Directorate, Chennai as a Nodal agency constituted the Joint committee with the following members, on receipt of nominations from the respective departments to inspect the area in question and to submit a factual as well as action taken report of Committee on or before 22-02-2021 in terms of Hon'ble NGT Order;

S. No	Member	Organization	Contact details Mob no & email ID	Capacity
1.	Sh. C. Rajendiran, Revenue Divisional Officer, Karur	District Collector, Karur.	9445000918 & dro.tnkar@nic.in	Member
2.	Shri.P. Muthusamy, Superintending Engineer, PWD, WRD, Palani	Chief Engineer, WRD, Coimbatore Region	9865227961 & sewropalani@gmail.com	Member
3.	Shri. I. Nakkiran Municipal Engineer	The Commissioner, Karur Municipal Council, Karur	8489916703 & commr.karur@tn.gov.in	Member
4.	District Environmental Engineer	Tamilnadu Pollution Control Board, Karur	8056042243 & tnpcbkarur@gmail.com	Member

क्षेत्रीय निदेशालय (चेन्नई) : द्वितीय तल, 77-ए, साउथ एवेन्यू रोड, अंबतूर औद्योगिक क्षेत्र, अंबतूर तालुक, तिरुवल्लूर जिला, चेन्नई - ६०००५८

Regional Directorate (Chennai) : Second Floor, 77-A, South Avenue Road, Ambattur Industrial Estate, Ambattur Taluk, Thiruvallur District, Chennai - 600 058. Mobile : 22305793, 22307078, 22307079, 22301932, 22304948 Email : cpcbrcchennai@gmail.com

प्रधान कार्यालय : परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली- ११० ०३२.

Head Office : Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032.

दूरभाष / Telephone : 011-43102030, Fax : 22305793, 22307078, 22307079, 22301932, 22304948

ई-मेल / E-mail : cpcb@nic.in वेबसाइट / Website : www.cpcb.nic.in



केन्द्रीय प्रदूषण नियंत्रण बोर्ड CENTRAL POLLUTION CONTROL BOARD

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

5.	Shri. S. Karthikeyan Scientist C	Central Pollution Control Board, Regional Directorate, Chennai	9243424389 & skarthikeyan.cpcb@nic.in	Member
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In case of any further clarification, Sh.S. Karthikeyan, nodal officer of this office may pl be contacted

Terms of Reference as per NGT Order:

The committee shall

1. submit a factual as well as action taken report if there is any violation found, including assessment of environmental compensation for damage caused on account of any alleged illegal activity resulting in pollution to the water in the river Amaravathy
2. inspect the industries in that area and ascertain as to whether they are having proper effluent treatment system and is there any illegal or unauthorised untreated discharge being made by any of the industries in that district to the Amaravathy river so as to cause the pollution of the river water
3. ascertain as to whether there is any illegal discharge of untreated sewage from the municipal area to the river
4. ascertain the existence and functioning of any Effluent Treatment Plant (ETP), Sewage Treatment Plant (STP) and requirement of a Common Effluent Treatment Plant (CETPs) in that area and its operation level as to whether it meets all the norms by testing the inlets and outlets of the effluents being treated by these units and if there is any violation found, what is the action proposed to be taken against such units
5. ascertain as to whether Karur Municipality is complying with the provisions of the Solid Waste Management Rules, 2016 in its letter and spirit in disposing the waste generated including the sewage and whether there is any illegal discharge of such things into the river which causes pollution and whether the direction issued by the Principal Bench of National Green Tribunal in O.A. No.: 606 of 2018 have been complied with
6. Test the water quality of the river in respect of all criteria's including the presence of heavy metals, Total Coliform (TCL) and Faecal Coliform apart from ascertaining the quality of water in the river and if there is any contamination found, ascertain the source and suggest the necessary steps to be taken for removing the contamination and make the water to the potable level
7. Suggest the proposed actions to be taken against the erring units and on that basis; the regulating authorities are directed to take steps against such units so as to prevent such illegal activities being continued in that area.

Sd./..
(H.D. Varalaxmi)
Regional Director
Chennai

क्षेत्रीय निदेशालय (चेन्नई) : द्वितीय तल, 77-ए, साउथ एवेन्यू रोड, अंबतूर औद्योगिक क्षेत्र, अंबतूर तालुक, तिरुवल्लूर जिला, चेन्नई - ६०००५८

Regional Directorate (Chennai) : Second Floor, 77-A, South Avenue Road, Ambattur Industrial Estate, Ambattur Taluk, Thiruvallur District, Chennai - 600 058. Mobile : 9243424389. Email : cpcbrcdchennai@gmail.com

प्रधान कार्यालय : परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली- ११० ०३२.

Head Office : Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032.

दूरभाष / Telephone : 011-43102030, Fax : 22305793, 22307078, 22307079, 22301932, 22304948

ई-मेल / E-mail : cpcb@nic.in वेबसाइट / Website : www.cpcb.nic.in

To

1. Shri. C. Rajendran, Revenue Divisional Officer, Karur.
2. Shri. P. Muthusamy, Superintending Engineer, PWD, WRD, Palani
3. Sh. I. Nakkiran, Municipal Engineer, Karur Municipal Council, Karur
4. DEE, TNPCB, Karur
5. Shri. S. Karthikeyan, Sci-C, CPCB, RD, Chennai

Copy to

6. Shri. A. Sudhakar, Sci-E-cum-DH., WQM-I, CPCB, HO, Delhi
7. Shri. G. Rambabu, Sci-D-cum-Head, Law Division, CPCB, HO, Delhi
8. Accounts Section, CPCB, RD, Bengaluru

Yours faithfully

H.D. Varalaxmi 24/11/2020

(H.D. Varalaxmi)
Regional Director
Chennai
9449004165
vlaxmi.cpcb@nic.in

Encl.: as above



ADVANCED ENVIRONMENTAL LABOURATORY,
TAMILNADU POLLUTION CONTROL BOARD, SALEM-636004.
Accredited by NABL -(ISO/IEC 17025:2005)



REPORT OF ANALYSIS

1. Name and address of the sender		The District Environmental Engineer, Tamilnadu Pollution Control Board, Karur.			
2. Condition of seal, fastening and Container		Sealed / Fastened Condition in Polythene carbuoy 2.5 Lits X 6 Nos.			
3..Nature of Sample		6 Nos. of Sewage Samples.			
SI.No	Point of Collection	Lab Code No.	DEE Code No.	Date & Time of collection	Date & Time of receipt at Lab
1	Periandankoil Periyar Nagar D/s of Check dam oppo to over head tank (left bank of Amaravathy)	2163	D1/Karur	04.02.2021 at 2.45 PM	12.02.2021 at 08.10 PM
2	AVS- AVR Colony Chinnandankoil	2164	D2/Karur	04.02.2021 at 3.05 PM	
3	Under Old bridge entrance at Light House Corner	2165	D3/Karur	04.02.2021 at 3.22 PM	
4	Sungagate near Sri Giri Welding Works	2166	D4/Karur	04.02.2021 at 3.32 PM	
5	Near Animal Husbandary Office, Kolantanur	2167	D5/Karur	04.02.2021 at 3.38 PM	
6	T. Sellandipalayam near Kalaingar Tea Stall opposite to Bagavathi Amman Temple	2168	D6/Karur	04.02.2021 at 3.52 PM	

GA
24/2/21
Dy.CSO

D. Mohanraj
Assistant Director (Lab) 24/2/21
AEL-TNPCB-SALEM.



ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD, SALEM - 636 004.
Accredited by NABL - (ISO/IEC 17025:2005)



ULR- TC - 68742100000257 P to
ULR- TC - 68742100000260 P

Sl. No.	Parameters	Parameters Analyzed for Water Samples - Salem District.				Test Method
		Drainage				
Nature of samples		Periandankoil Periyar Nagar D/s of Check dam oppo to over head tank (left bank of Amaravathy)	AVS- AVR Colony Chinnandankoil	Under Old bridge entrance at Light House Corner	Sungagate near Sri Giri Welding Works	
Point of Collection						
Date of Collection		04.02.2021 at 2.45 PM	04.02.2021 at 3.05 PM	04.02.2021 at 3.22 PM	04.02.2021 at 3.32 PM	
Date & Time of Receipt		12.02.2021 at 08.10 PM				
DEE Code		D1/Karur	D2/Karur	D3/Karur	D4/Karur	
Lab Code		2163	2164	2165	2166	
Number		6.72	6.77	6.43	6.68	
pH at 25°C		796	1584	884	1584	
TDS at 180°C		80	44	52	128	
TSS at 103°C - at 105°C		760	1524	828	1496	
Fixed Dissolved Solids		30	30	33	84	
BOD (at 27°C for 3 days)		192	208	200	416	
COD		<4	<4	<4	4	
Oil & Grease		6.16	10.08	6.72	12.88	
Ammonical Nitrogen as NH3-N		<0.0015	<0.0015	<0.0015	<0.0015	
Copper*		<0.0015	<0.0015	<0.0015	<0.0015	
Zinc*		<0.0015	<0.0015	<0.0015	<0.0015	



ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD, SALEM - 636 004.
Accredited by NABL - (ISO/IEC 17025:2005)



ULR- TC - 68/42100000257 P to
ULR- TC - 68742100000260 P

SL No.	Parameters	Nature of samples				Drainage				Test Method
		Point of Collection	Periandankoil Periyar Nagar D/s of Cheek dam oppo to over head tank (left bank of Amaravathy)	AVS- AVR Colony Chinnandankoil	Under Old bridge entrance at Light House Corner	Sungagate near Sri Giri Welding Works				
		Date of Collection	04.02.2021 at 2.45 PM	04.02.2021 at 3.05 PM	04.02.2021 at 3.22 PM	04.02.2021 at 3.32 PM	12.02.2021 at 08.10 PM			
		Date & Time of Receipt								
		DEE Code	D1/Karur	D2/Karur	D3/Karur	D4/Karur				
		Lab Code	2163	2164	2165	2166				
11	Lead*	mg/l	<0.015	<0.015	<0.015	<0.015	APHA 23 rd Edi. 2017 3111. B			
12	Nickel*	mg/l	<0.006	<0.006	<0.006	<0.006	APHA 23 rd Edi. 2017 3111. B			
13	Cadmium	mg/l	<0.0008	<0.0008	<0.0008	<0.0008	APHA 23 rd Edi. 2017 3111. B			
14	Manganese*	mg/l	<0.1	<0.1	<0.1	<0.1	APHA 23 rd Edi. 2017 3550 - Mn			
15	Total Chromium	mg/l	<0.05	<0.05	<0.05	<0.05	APHA 23 rd Edi. 2017 3500-Cr B			
16	Hexavalent Chromium	mg/l	<0.05	<0.05	<0.05	<0.05	APHA 23 rd Edi. 2017 3500-Cr B			

Note: 1) < = Indicates Less than Minimum Detectable Limit.
2) * The parameter marked with an * are not accredited by NABL".
- End of Test Report -

[Signature]
24/12/21
Dy. CSO

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Assistant Director (Lab)
AEL-TNPCB-SALEM.



ULR-TC - 68742100000261 P
ULR-TC - 68742100000262 P

Sl. No.	Parameters	Parameters Analyzed for Water Samples - Salem District.			Test Method
		Nature of samples	Drainage		
	Point of Collection	Near Animal Husbandary Office, Kolantanur	T. Sellandipalayam near Kalaingar Tea Stall opposite to Bagavathi Amman Temple		
	Date of Collection	04.02.2021 at 3.38 PM	04.02.2021 at 3.52 PM		
	Date & Time of Receipt	12.02.2021 at 08.10 PM			
	DEE Code	D5/Karur	D6/Karur		
	Lab Code	2167	2168		
	Number	6.90	6.68		APHA 23rd Edi.2017 4500-H
1	pH at 25°C	1592	2132		APHA 23rd Edi.2017- 2540 - C
2	TDS at 180°C	48	64		APHA 23rd Edi. 2017 5220
3	TSS at 103°C - at 105°C	1512	2040		APHA 23rd Edi.2017- 2540 - E
4	Fixed and Volatile Solids	74	78		ISS3025 (P44) 1993 Reaffirmed 2009
5	BOD (at 27°C for 3 days)	376	384		APHA 23rd Edi. 2017 5220
6	COD	4	4		APHA 23rd Edi.2017 5520 - D
7	Oil & Grease	11.2	14.56		APHA 23rd Edi. 2017 4500 - NH3 C
8	Ammonical Nitrogen as NH3-N	<0.0015	<0.0015		APHA 23 rd Edi. 2017 3111. B
9	Copper*	<0.0015	<0.0015		APHA 23 rd Edi. 2017 3111. B
10	Zinc*	<0.0015	<0.0015		APHA 23 rd Edi. 2017 3111. B



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ULR- TC - 68742100000260 P to
ULR- TC - 68742100000262 P

Sl. No.	Parameters	Nature of samples		Drainage		Test Method
		Point of Collection	Date of Collection	Near Animal Husbandary Office, Kolantanur	T. Sellandipalayam near Kalaingar Tea Stall opposite to Bagavathi Amman Temple	
			04.02.2021 at 3.38 PM		04.02.2021 at 3.52 PM	
			12.02.2021 at 08.10 PM			
		DEE Code	D5/Karur	D6/Karur		
		Lab Code	2167*	2168		
11	Lead*	mg/l	<0.015	<0.015		APHA 23 rd Edi. 2017 3111. B
12	Nickel*	mg/l	<0.006	<0.006		APHA 23 rd Edi. 2017 3111. B
13	Cadmium	mg/l	<0.0008	<0.0008		APHA 23 rd Edi. 2017 3111. B
14	Manganese*	mg/l	<0.1	<0.1		APHA 23 rd Edi. 2017 3550 - Min
15	Total Chromium	mg/l	<0.05	<0.05		APHA 23 rd Edi. 2017 3500-Cr B
16	Hexavalent Chromium	mg/l	<0.05	<0.05		APHA 23 rd Edi. 2017 3500-Cr B

Note: 1) <= Indicates Less than Minimum Detectable Limit.

2) **The parameter marked with an * are not accredited by NABL**.

- End of Test Report -

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24/12/21
Dy. CSO

[Signature]
Assistant Director (Lab)
AEL-TNPCB-SALEM.



ADVANCED ENVIRONMENTAL LABOURATORY,
TAMILNADU POLLUTION CONTROL BOARD, SALEM-636004.
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REPORT OF ANALYSIS

1. Name and address of the sender		The District Environmental Engineer, Tamilnadu Pollution Control Board, Karur.			
2. Condition of seal, fastening and Container		Sealed / Fastened Condition in Polythene carbuoy 2.5 Lits X 4 Nos. 1) DO Sample : Sterilized BOD Bottles Condition Vol. 300ml X 4 Nos. 2) Bacteriological Sample : Sterilized BOD Bottles Condition Vol. 300ml X 4 Nos.			
3. Nature of Sample		4 Nos. of River Water Samples			
Sl.No	Point of Collection	Lab Code No.	DEE Code No.	Date & Time of collection	Date & Time of receipt at Lab
1	Check Dam of River Amaravathy at Andankoil	2156	R1/Karur	12.02.2021 at 10.55 AM	12.02.2021 at 08.10 PM
2	River Amaravathy under bridge at Madurai Bye Pass NH44	2157	R2/Karur	12.02.2021 at 11.15 AM	
3	River Amaravathy at Thirumanilayur Padikattuthurai at Right Bank	2158	R3/Karur	12.02.2021 at 11.45 AM	
4	River Amaravathy at sanapiratti village near old Dindugal Water Supply Scheme	2159	R4/Karur	12.02.2021 at 12.15 PM	

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24/2/21
Assistant Director (Lab)
AEL-TNPCB-SALEM.



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ULR- TC - 68742100000250 P to
ULR- TC - 68742100000253 P

Sl. No.	Parameters	Nature of samples	Parameters Analyzed for Water Samples - Salem District.				Test Method
			River Water Samples				
		Point of Collection	Check Dam of River Amaravathy at Andankoil	River Amaravathy under bridge at Madurai Bye Pass NH44	River Amaravathy at Thirumanilayur Padikattuthurai at Right Bank	River Amaravathy at sanapiratti village near old Dindugal Water Supply Scheme	
		Date of Collection	12.02.2021 at 10.55 AM	12.02.2021 at 11.15 AM	12.02.2021 at 11.45 AM	12.02.2021 at 12.15 PM	
		Date & Time of Receipt	12.02.2021 at 08.10 PM				
		DEE Code	R1/Karur	R2/Karur	R3/Karur	R4/Karur	
		Lab Code	2156	2157	2158	2159	
1	pH at 25°C	Number	7.27	7.05	7.20	7.30	APHA 23rd Edi.2017 4500-H
2	TDS at 180°C	mg/l	512	556	576	612	APHA 23rd Edi.2017- 2540 - C
3	Fixed Dissolved Solids	mg/l	492	532	556	596	APHA 23rd Edi.2017- 2540 - C
4	Chloride as Cl	mg/l	84	100	124	138	APHA 23rd Edi.2017- 4500-CIB
5	Sulphates as SO4	mg/l	69	78	59	57	APHA 23rd Edi.2017- 4500-E
6	BOD (at 27°C for 3 days)	mg/l	<2	<2	<2	<2	IS3025 (P44) 1993 Reaffirmed 2009
7	COD	mg/l	16	16	16	16	APHA 23rd Edi. 2017 5220
8	Total Kjeldahl Nitrogen	mg/l	1.68	2.24	2.24	2.24	APHA 23rd Edi. 2017 4500 - Norg B
9	Ammonical Nitrogen as NH3-N	mg/l	0.56	1.12	1.12	1.12	APHA 23rd Edi. 2017 4500 - NH3 C
10	Nitrate Nitrogen as NO3	mg/l	0.064	0.042	0.085	0.057	APHA 23 rd Edi. 2017 4500 - NO ₃ B
11	Nitrite Nitrogen as NO2	mg/l	0.031	0.045	0.392	0.527	APHA 23 rd Edi.2017 4500-NO ₂ B



ADVANCED ENVIRONMENTAL LABORATORY,
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ULR- TC - 68742100000250 P to
ULR- TC - 68742100000253 P

Sl No.	Parameters	Nature of samples	River Water Samples				Test Method
			Check Dam of River Amaravathy at Andankoil	River Amaravathy under bridge at Madurai Bye Pass NH44	River Amaravathy at Thirumanilayur Padikattuthurai at Right Bank	River Amaravathy at sanapiratti village near old Dindugal Water Supply Scheme	
		Date of Collection	12.02.2021 at 10.55 AM	12.02.2021 at 11.15 AM	12.02.2021 at 11.45 AM	12.02.2021 at 12.15 PM	
		Date & Time of Receipt	12.02.2021 at 08.10 PM				
		DEE Code	R1/Karur	R2/Karur	R3/Karur	R4/Karur	
		Lab Code	2156	2157	2158	2159	
12	Total Nitrogen*	mg/l	1.77	2.33	2.72	2.82	APHA 23 rd Edi. 2017 4500 - NH2 - B
13	Fluoride as F	mg/l	0.051	0.063	0.075	0.046	APHA 23 rd Edi. 2017 4500-F-D
14	Iron Total as Fe	mg/l	0.288	0.390	0.158	0.037	APHA 23 rd Edi. 2017 3500-Fe B
15	Total Hardness as CaCO ₃	mg/l	228	240	248	244	APHA 23 rd Edi. 2017 2340 C
16	Calcium as Ca	mg/l	48	49	52	53	APHA 23 rd Edi.2017 3500 B
17	Magnesium as Mg	mg/l	26	28	28	27	APHA 23 rd Edi. 2017 2340 C
18	Sodium as Na	mg/l	67.8	74.2	81.9	87.9	APHA 23 rd Edi. 2017 3500-Na B
19	Potassium as K	mg/l	5.6	5.9	6.3	9.5	APHA 23 rd Edi. 2017 3500-K B
20	SAR*	mg/l	2.0	2.1	2.3	2.5	Calculation Method
21	Total Alkalinity as CaCO ₃	mg/l	208	208	220	208	APHA 23 rd Edi. 2017 2320 B
22	Ph.Alkalinity*	mg/l	20	8	4	8	APHA 23 rd Edi. 2017 2320 B
23	%Sodium	mg/l	39	40	41	43	SOP NO.TNPCB/AEL-SLM/SOP/35 Issue No.1 Dt. 25.04.2014
24	Dissolved Phosphate as PO ₄	mg/l	0.019	0.023	0.056	0.134	APHA 23 rd Edi. 2017 4500-P E
25	Total Phosphate as PO ₄	mg/l	0.05	0.060	0.125	0.412	APHA 23 rd Edi. 2017 4500-P E

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Accredited by NABL - (ISO/IEC 17025:2005)



ULR- TC - 68742100000250 P to
ULR- TC - 68742100000253 P

Sl. No.	Parameters	Nature of samples				River Water Samples				Test Method
		Point of Collection	Check Dam of River Amaravathy at Andankoil	River Amaravathy under bridge at Madurai Bye Pass NH44	River Amaravathy at Thirumanilayur Padikkattuthurai at Right Bank	River Amaravathy at sanapiratti village near old Dindugal Water Supply Scheme				
		Date of Collection	12.02.2021 at 10.55 AM	12.02.2021 at 11.15 AM	12.02.2021 at 11.45 AM	12.02.2021 at 08.10 PM	12.02.2021 at 12.15 PM			
		Date & Time of Receipt	12.02.2021 at 08.10 PM							
		DEE Code	R1/Karur	R2/Karur	R3/Karur	R4/Karur				
		Lab Code	2156	2157	2158	2159				
26	Boron*	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002		APHA 23rd Edi.2017-4500-B-C	
27	Copper*	mg/l	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015		APHA 23rd Edi. 2017 3111. B	
28	Zinc*	mg/l	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015		APHA 23rd Edi. 2017 3111. B	
29	Lead*	mg/l	<0.015	<0.015	<0.015	<0.015	<0.015		APHA 23rd Edi. 2017 3111. B	
30	Nickel*	mg/l	<0.006	<0.006	<0.006	<0.006	<0.006		APHA 23rd Edi. 2017 3111. B	
31	Cadmium	mg/l	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008		APHA 23rd Edi. 2017 3111. B	
32	Manganese*	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1		APHA 23rd Edi. 2017 3550 - Mn	
33	Total Chromium	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05		APHA 23rd Edi. 2017 3500-Cr B	
34	Hexavalent Chromium	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05		APHA 23rd Edi. 2017 3500-Cr B	
35	Dissolved Oxygen	mg/l	6.0	6.7	6.8	6.8	6.8		APHA 23rd Edi. 2017 4500 - O C	
36	Total Coliform*	MPN/ 100ML	4.5	11	12	12	5.5		APHA 23rd Edi.2017 9221 B	
37	Faecal Coliform*	MPN/ 100ML	<1.8	4.5	4.5	4.5	1.8		APHA 23rd Edi.2017 9221 E	

Note: 1) < = Indicates Less than Minimum Detectable Limit.
2) * The parameter marked with an * are not accredited by NABL.

[Signature]
Assistant Director (Lab)
AEL-TNPCB-SALEM

Dy.CSO



PROFORMA FOR BLEACHING AND DYEING INDUSTRIES

❖ General Information & Production Details

Name and address of the industry	Atlas Processing Mills S.F.No.1288,1292,1293,2453,1303,1320,1321,1323,1326 to 1334, Andankoil West Village, No.1/168, Sivasakthi Nagar, Periyandankoil Post, Manmangalam Taluk, Karur District.		
Name of the occupier/ Authorized person with	M.Nachimuthu, Partner		
a. Telephone/Mobile no.	8870001467		
b. Fax			
c. e-mail	Sivakumar.m@atlas.in		
Name of contact person with	M.Sivakumar (Unit Head)		
a. Mobile no.:	8870001467		
b. Fax			
c. e-mail	sivakumar.m@atlas.in		
Date/Year of commissioning	26/12/1989		
Total area	2.1053 Ha		
Establishment area	1.55000 Ha		
No. of employees	200		
Consent Status	RCO Obtained with validity upto 31.03.2022		
Consented Production capacity	<ol style="list-style-type: none"> 1. Bleaching and Dyeing Yarn-117 T/ Month ; 2. Bleaching and Dyeing Fabric -196 T/ Month; 3. Fabric Printing -156 T/Month 		
Installed production capacity (TPD) for each product	<ol style="list-style-type: none"> 1. Bleaching and Dyeing Yarn-4.5 T/Day ; 2. Bleaching and Dyeing Fabric -7.5 T/ Day; 3. Fabric Printing - 6T/Day 		
By products (at full capacity)	Nil		
Present production status	<ol style="list-style-type: none"> 1. Bleaching and Dyeing Yarn- 70 T/Month ; 2. Bleaching and Dyeing Fabric - 75T/ month; 3. Fabric Printing – 70 T/month 		
By products (Actual Production)			
Manufacturing process details & flow diagram for each product.	Process Flow Diagram Enclosed		
Sources of water	Ground Water (outside Premises)		
Total water requirement (M ³ /day)	Domestic	10 m ³ / Day	
	Bleaching & Dyeing	580 m ³ /day	
❖ Waste Water – Generation & Treatment			
11	Wastewater generation, (M ³ /day)	As per consent	Present status

	Domestic wastewater Process effluent Washing Others	15 m3/ Day 580 m3/Day	10 m3/ Day 9 Average) 435 m3/Day (Average)					
	Total	595 m3/Day	445 m3/day					
12	Description of effluent treatment facilities with design details	Flow Chart Enclosed						
13	Quality of treated effluent	Within TNPCB standards						
❖ Air Pollution – Emission Sources & Control								
15	Sources of air pollution	Chimney Details	APC Equipments	Emission Quality				
			Stipulated	Provided				
	Boiler 5Ton/ Hr 6Ton/ Hr & Thermic Fluid Heater -20 Lac KCAL	Stack -30 Meter	Stack	Stack with Cyclomax – Dust Collector	SO ₂ SPM NO ₃ Pb	27.0 49.0 39.0 <0.5		
	Details of D.G Set		Capacity		Exhaust pipe-		Emission Std.	
		180 KVA,380 KVA,500 KVA				Enclosed Form 2		
16	Fuel Consumption		Type of fuel		Consumption		Used in	
			Diesel		900 Lit / Month		DG	
			Coal		450 M Ton / Month		Boiler	
			Fire wood		5.0 M Ton / Month		Boiler	
17	Details on solid waste generation							
	Type of Wastes		Quantity generated (m3/day or tons/day)		Storage		Disposal	
	Chemical Sludge		0.5 T/ Day		Packed in polythene bags, stored in closed shed within the premises.		Co-processing in cement kilms /TNWML as per TNPCB norms	
	Biological sludge		1.0 T/ Day					
	Salt		1.5 T/ Day					
ETP Sludge		1.0 T/ Day						
Others(specify)		-						
Total		4.0 T/ Day						
Details on hazardous wastes generation								
Type of Wastes		Quantity generated (m3/day or tons/day)		Storage		Disposal		Threshold capacity
❖ Status of validity & compliance of consents and authorization								
	Consent/Authorization		Validity		Compliance of conditions			
I	Under Water Act							

	(copy to be enclosed)	31.03.2022	Enclosed
II	Under Air Act (copy to be enclosed)	31.03.2022	Enclosed
III	Hazardous Waste authorization (copy to be enclosed)	29.04.2021	Enclosed

(Note.: Wherever space is not sufficient, attach it in a separate sheet)

Water consumption per ton of product, KL/ton;

1.	Fresh water consumption	0.22 KL (Average)
2.	RO Permeate	42.5 KL(Average)
3.	MEE Condensate	3.5 KL (average)

Treatment units & its capacity;

Treatment unit	Dimension of the unit
Receiving tank	Hourly influent flow rate, m ³ /hr – 20 m ³ /hr Volume of tank, m ³ 830 KLD
Equalization tank	-
Flocculation tank	Hourly influent flow rate, m ³ /hr - 20 m ³ /Hr Volume of tank, m ³ - 3.5 m ³
Tube settler	-
Primary Settling tank	Hourly influent flow rate, 20m ³ /hr Surface area, 5mx 4 m – 2 nos
Aeration tank	Hourly influent flow rate, m ³ /hr -20 m ³ /Hr Volume of tank, m ³ - 16m X 8.2m X4m 4.4m X 8.2m X4m No. of aerators - 2 Capacity of each aerator, HP - 15 HP DO, mg/l.: 4 MLSS, mg/l. : 4000mg / L MLVSS.mg/l : 3500mg/L
Secondary settling tank	Surface area, m ² 9m X 3.1m
Colour removing treatment	Hourly influent flow rate, m ³ /hr - 20m ³ /Hr Chemical dosage, ppm - 300 ppm Residential time in minutes Volume of tank, m ³ -3.5 KL
List of Chemicals used, its dosage and consumption per day	Lime } Lime – 500 Kg/ Day Ferrous Sulphate } 350 ppm FeSo ₄ -350 Kg/ Day Hcl, PAC } Hcl – 1200 Kg / Day PAC- 125 Kg / Day
Dual Media filters	Total units - 2 Dia of each unit -1.6m Dia X2.3m Hourly influent flow rate, m ³ /hr – 40m ³ / Hr Operational hours/day – 10 Hrs No. of units used

Filter press	5m ³ /hr
Decanter	10m ³ /hr
Sludge Drying Beds	Dim. Of SDB.: L x B x H: 4.1m X 4.1m X 1m Minimum retention period - 10 Days Capacity of Sludge Drying Beds - 16 m ²

Test Report:

	pH	BOD	COD	TSS	TDS
Raw effluent	9.5	7001	1700	500	5500
Aeration tank	7.0	400	1200	150	5500
After Sec. settling tank	7.5	100	400	30	5500
After dual media filters	6.5	50	100	10	5500

Zero Liquid Discharge: RO System, Stage wise

Stage	Capacity, KLD	Feed rate, m ³ /hr	Permeate, m ³ /hr	Reject, m ³ /hr	Solid concentration of RO reject, mg/L
1	600	30	21	9	
2	200	8	4	4	
3	80	4	2	2	
4	40	2	1.2	0.8	

No. and capacity of RO Feed tank – 4 , (RO1 – 165m³, RO2 – 120 m³, RO 3 – 54 M³, RO 4 – 50 M³)

Infrastructure to recycle the treated effluent – 235 KL – 2 No's

Reject Management System; (Solar Evaporation Pond / Mechanical Effect Evaporator)

No. of effects	Feed Rate	Solid conc. Of feed	Steam feed rate, TPH	Qty. of condensate generation,	Qty of salt generation		Qty of mother liquor sent to SEP	Qty. of residue generation and mode of disposal
					Pure salt, TPH	Impure salt, TPH		
4	2500 LPH	2 Lakh ppm	1	3000 LPH	-	-	TO ATFD – 500 LPH	1.5 Tons /day. Packed in Poly Bag Disposal To TNWML



PROFORMA FOR BLEACHING AND DYEING INDUSTRIES

General Information & Production Details

Name and address of the industry	M/s. NAVARANG DYE WORKS, S.F.No.1403/1D,1F,1G,1J,1K,1R,1S,1T, Sanapiratti Village, Narikkattiyur, S.Vellalapatty (PO), Karur - 639004.	
Name of the occupier/ Authorized person with	P.SUBRAMANIAN	
a. Telephone/Mobile no.	9894755741	
b. Fax	-	
c. e-mail	navarangkarur@gmail.com	
Name of contact person with	M.THIYAGARAJAN	
a. Mobile no.:	9894755741	
b. Fax	-	
c. e-mail	navarangkarur@gmail.com	
Date/Year of commissioning	01/04/1990	
Total area	0.9400 Ha	
Establishment area	0.4110 Ha	
No. of employees	25	
Consent Status	RCO obtained with validity up to 31.03.2022	
Consented Production capacity	1. Bleached and Dyed Yarn- 50 T/Month 2. Bleached and Dyed Cloth- 125 T/Month	
Installed production capacity (TPD) for each product	1. Bleached and Dyed Yarn- 2 T/Day 2. Bleached and Dyed Cloth- 5 T/Day	
By products (at full capacity)	Nil	
Present production status	Bleached and Dyed Cloth- 85 T/Month (Average)	
By products (Actual Production)	Nil	
Manufacturing process details & flow diagram for each product.	Enclosed in Annexure 1	
List of Raw materials and its consumption, productwise (Tons per Ton of product)	Enclosed in Annexure 2	
Sources of water	Bore Well	
Total water requirement (M ³ /day)	Domestic	1.25 KLD

		Bleaching & Dyeing	286 KLD (1.55 KLD Make up Water)					
		Washing	-					
		Others(specify)	Boiler – 25 KLD (Make up Water)					
		Total	27.80 KLD					
❖ Waste Water – Generation & Treatment								
11	Wastewater generation, (M ³ /day)	As per consent	Present status					
	Domestic wastewater	1.25 KLD	1.25 KLD					
	Process effluent	286 KLD	220 KLD (Average)					
	Washing	-	-					
	Others	-	-					
	Total	287.25 KLD	221.50 KLD					
12	Description of effluent treatment facilities with design details	Enclosed in Annexure 3						
13	Quality of treated effluent	Within PCB Standards						
❖ Air Pollution – Emission Sources & Control								
15	Sources of air pollution	Chimney Details	APC Equipments		Emission Quality			
			Stipulated	Provided				
	Boiler 5 T/Hr.	Stack with height 21M	Stack	Stack				
	Details of D.G Set D G Set		Capacity 125 KVA- 2 Nos		Exhaust pipe- 6.50M Height each		Emission Std.	
16	Fuel Consumption	Type of fuel		Consumption	Used in			
		Fire wood		6 T/Day	Boiler 5 T/Hr.			
		Diesel		0.05 T/Day	D G Set- 125 KVA- 2 Nos			
17	Details on Hazard waste generation							
	Type of Wastes	Quantity generated (m ³ /day or tons/day)		Storage	Disposal			
	ETP Chemical Sludge	1 T/Day		Stored in closed shed within the premises	Co-processing in cement kilns TNWML/ Virudhunagar.			
	Salt	0.83 T/Day						
Total	1.83 T/Day							
Details on solid wastes generation								
	Type of Wastes	Quantity generated (m ³ /day or tons/day)	Storage	Disposal	Threshold capacity			

❖ Status of validity & compliance of consents and authorization			
	Consent/Authorization	Validity	Compliance of conditions
I	Under Water Act (copy to be enclosed)	31.03.2022	Complied all the conditions issued in RCO.
II	Under Air Act (copy to be enclosed)	31.03.2022	Complied all the conditions issued in RCO.
III	Hazardous Waste authorization (copy to be enclosed)	02.11.2025	Complied all the conditions issued in Authorization.
❖ Status on implementation of CREP recommendations:			
1			
2			
3			
4			
5			
❖ Environmental clearance – details & Compliance:			
1.	Details of E.C		
2.	Major Conditions		Compliance
a.			
b.			
c.			
d.			
	Environmental Measures taken; Area under Green cover.: Solar Panel particulars: Replacement of LED lamps		

(Note.: Wherever space is not sufficient, attach it in a separate sheet)

List of salts used per ton of fabric;

S. No	Name of the salt	Salt consumption per ton of fabrics		Quantity of brain solution used per ton of fabric
		Fresh salt	Recovered salt	
1.	Brain Solution	-	-	1500 Ltrs

Water consumption per ton of product, KL/ton;

1.	Fresh water consumption	0.16 KL
2.	RO Permeate	27.30 KL
3.	MEE Condensate	1.20 KL

Treatment units & its capacity;

Treatment unit	Dimension of the unit
Receiving tank	Hourly influent flow rate- 14.30 m ³ /hr, Volume of tank- 308.80m ³
Equalization tank	-
Flocculation tank	-
Tube settler	-
Primary Settling tank	-
Upflow Anaerobic Sludge Blank Reactor	-
Aeration tank	Hourly influent flow rate- 14.30 m ³ /hr, Volume of tank- 428 m ³ No. of aerators- Diffused Aeration System, Capacity of each Blower- 15 HP/2 Nos, DO, mg/l.: MLSS, mg/l. : MLVSS.mg/l :
Secondary settling tank	Surface area,- 33.18 m ²
Colour removing treatment	Hourly influent flow rate- 14.30 m ³ /hr Chemical dosage, Lime – 700 ppm, FeSo ₄ – 400 ppm & Poly Electrolyte – 2 ppm Residential time in minutes – 348 min Volume of tank- 82.96 m ³
List of Chemicals used, its dosage and consumption per day	Lime – 200 Kgs, FeSo ₄ – 115 Kgs, & Poly Electrolyte – 50 Grams,
Dual Media filters	Total units : 1 Nos, Dia of each unit : 2.20 M Hourly influent flow rate- 14.30 m ³ /hr Operational hours/day : 20 hours No. of units used : 1 Nos
Activated carbon columns	Total units 1 Nos, Dia of each unit : 1.50 M Hourly influent flow rate- 14.30 m ³ /hr Operational hours/day : 20 hours No. of units used : 1 Nos
Sludge thickener	-
Rotary vacuum filter	-
Filter press	5 m ³ /hr
Sludge Drying Beds	Dim. Of SDB.: 6 Nosx8.70x4.00x1.00 M & 5 Nosx8.60x4.40x1.00 M. Minimum retention period Capacity of Sludge Drying Beds : 119.40 m ³ .

Method of regulating and measuring primary sludge withdrawal flow rate:

Method of regulating and measuring thickened sludge withdrawal flow rate:

Test Report: Latest TNPCB ROA Enclosed in Annuxer-4.

	pH	BOD	COD	TSS	TDS
Raw effluent					
After Eq. tank					
After UASBR					
After Tube Settler/PST					
Aeration tank					
After Sec. settling tank					
After dual media filters					
After activated carbon columns					
Primary settling tank (underflow and TSS only)					
Thickener sludge					
SST return / excess sludge (TSS only)					
Discharge standards (TNPCB)					

Zero Liquid Discharge: RO System, stagewise

Stage	Capacity, KLD	Feed rate, m ³ /hr	Permeate, m ³ /hr	Reject, m ³ /hr	Solid concentration of RO reject, mg/l
1	480	24	16.80	7.20	
2	120	6	3.00	3.00	
3	60	3	1.50	1.50	
Nano	80	4	2.80	1.20	

No. and capacity of RO Feed tank: 3 Nos with Capacity - 152 m³

Infrastructure to recycle the treated effluent : Treated effluent collected in RO combined permeate tank and Nano brine solution tank and reused in the process.

Any other information to submit: -

For NAVARANG DYE WORKS

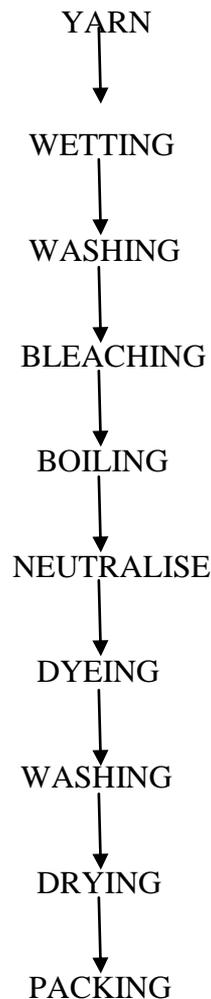

PARTNER

Reject Management System; (Solar Evaporation Pond / Mechanical Effect Evaporator)

No. of effects	Feed Rate	Solid conc. Of feed	Steam feed rate, TPH	Qty. of condensate generation,	Qty of salt generation		Qty of mother liquor sent to SEP	Qty. of residue generation and mode of disposal
					Pure salt, TPH	Impure salt, TPH		
3	2000 LPH	1 Lakh ppm	0.005	1600 LPH	-	-	To ATFD 400 LPH	0.83 Ton/Day Disposal to to M/s.TNWML, Viruthunagar.

ANNEXURE – 1**MANUFACTURING PROCESS (COTTON YARN)**

The quality yarns are being purchased from the regular purchaser. The Yarn purchased is next processed to the boiling & bleaching stage. They are boiled and bleaching at the correct temperature say at 90 degree Celsius in the Cabinet Machine. After the boiling of the yarns at the correct temperature it is ready for the dyeing process. The correct proportions of the dyes are put in the cabinet machine in the cold water and yarns being dyed. If the shade is acceptable we shall continue the process of soaping in the machines. The dyed wet yarns processed are let into the hydro machine for the evacuation of the water in the yarn. The yarn is processed into the machine for the complete dry of the yarn. The Dyeing process is completed and the dyed yarns is ready for packing and dispatch.

MANUFACTURING PROCESS FLOW CHART (COTTON YARN)

MANUFACTURING PROCESS (DYEING OF COTTON FABRIC)

GREY INSPECTION

The grey Cotton cloths from our Head Office and from other customers are received and take it for processing according to the requirements given by the customer.

SCOURING & BLEACHING

This pre treatment process is carried out to remove the natural and added impurities (during spinning and other process) present in the fiber. This process is carried out at the temperature of maximum 105°C for about 45 min with the help of Detergent, Sodium Hydroxide and Hydrogen Peroxide chemicals with very low quantity. It helps to uniform penetration of dyes results in uniform shade on the fabric.

DYEING

This process is carried out to get the bleached fabric in to dye one. This is done based on the shade which was given by the customer in the soft flow machine. Reactive dyes are used as the fabrics are of cotton (cellulose fiber). After the completion of dyeing, the fabrics are washed with cold, Hot water, neutralized with Acetic acid, and soaped to remove the un- fixed colors and finally fixing agents are added to improve the fastness and to avoid bleeding of colors from the fabric, and then the fabric is taken from the dyeing machine and send it for squeezing.

SQUEEZING

This process is carried out to squeeze and reduce the excess water present in the dyed fabric. The fabric is passed through a mangle of two press rolls, where the pneumatic air pressure is adjusted to get the optimum efficiency without affecting the fabric.

FINISHING

The squeezed fabrics are taken in to the Stenter machine for drying and finishing. The finishing chemicals like softener, bio- finish are added in the mangle and are dried in the oil heated radiator chambers at the temperature of 160 °C.

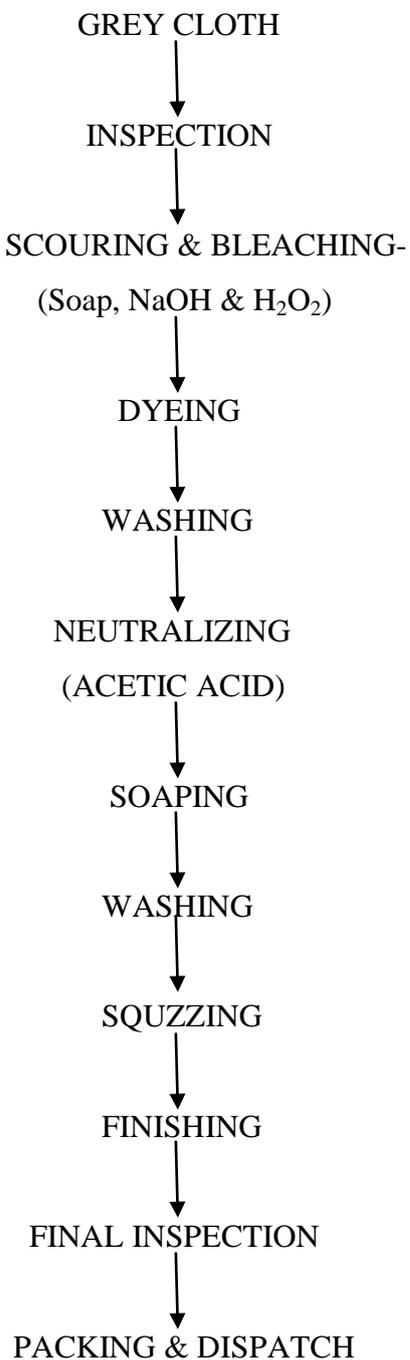
FINAL INSPECTION

The finished and compacted fabrics are taken for final inspection to check and correct the process defect before it goes to the customer.

PACKING & DESPATCH

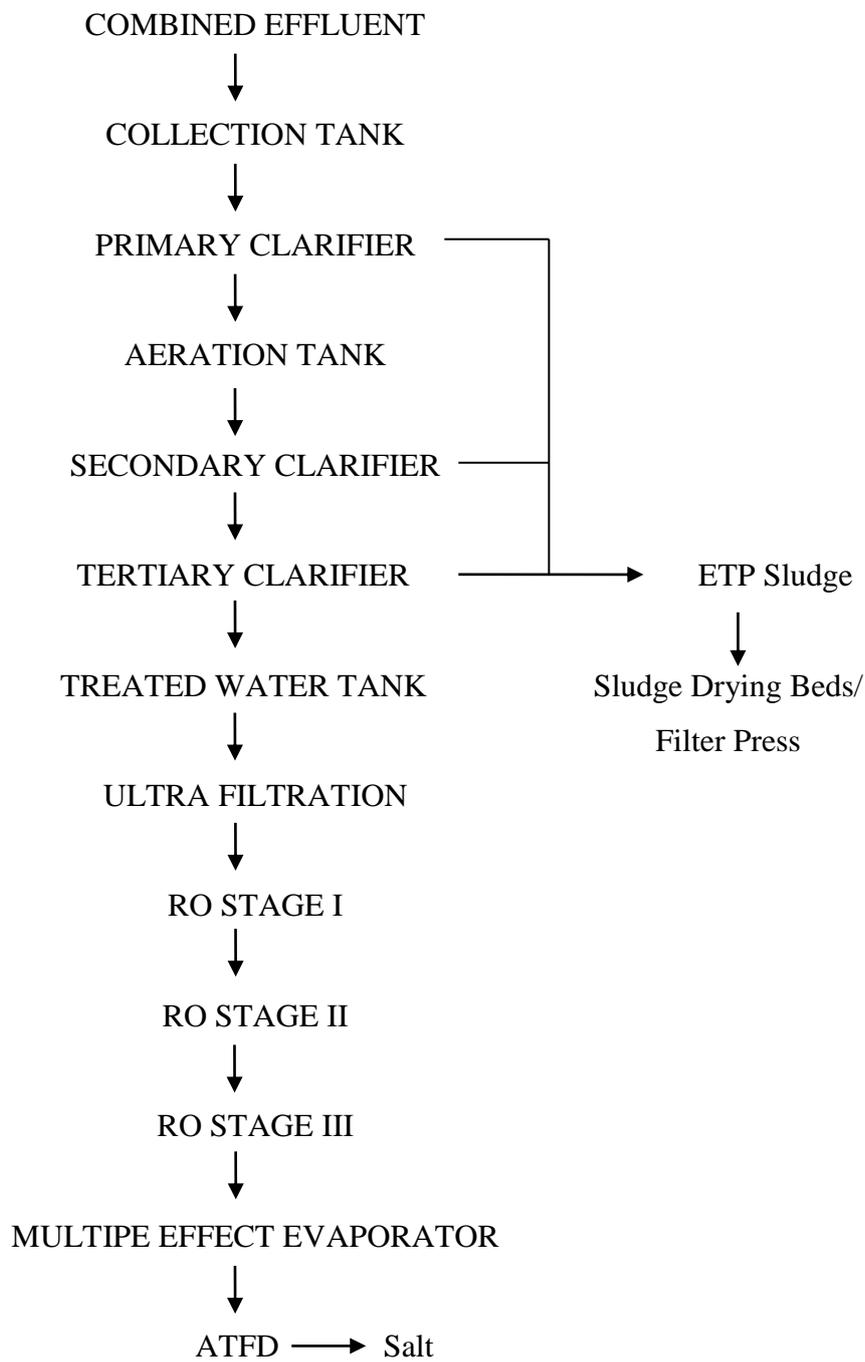
The inspected fabrics are packed with polyethylene paper to protect from moisture and avoid handling defect and are dispatched to the customer.

MANUFACTURING PROCESS FLOW CHART
(DYEING OF COTTON FABRIC)



ANNEXURE – 2
RAW MATERIAL DETAILS

SL.No.	Name of the raw material	Quantity	Unit	Principal Use
1.	Cotton Yarn	50.0	T/Month	Bleaching and Dyeing of Yarn
2.	Cotton Fabric/Cloth	125.0	T/Month	Bleaching and Dyeing of Fabric/Cloth
3.	Wetting Oil	0.875	T/Month	Bleaching and Dyeing of Fabric/Cloth
4.	Caustic Soda	3.50	T/Month	Bleaching and Dyeing of Fabric/Cloth
5.	Hydrogen Peroxide	3.50	T/Month	Bleaching and Dyeing of Fabric/Cloth
6.	Desizing Chemical	0.875	T/Month	Bleaching and Dyeing of Fabric/Cloth
7.	Acetic Acid	2.625	T/Month	Bleaching and Dyeing of Fabric/Cloth
8.	Salt	15.00	T/Month	Bleaching and Dyeing of Fabric/Cloth
9.	Soda Ash	3.50	T/Month	Bleaching and Dyeing of Fabric/Cloth
10.	Dyes	7.625	T/Month	Bleaching and Dyeing of Fabric/Cloth
11.	Soap oil	0.875	T/Month	Bleaching and Dyeing of Fabric/Cloth
12.	Hcl	0.50	T/Month	Bleaching and Dyeing of Fabric/Cloth
13.	Stabiliser	0.875	T/Month	Bleaching and Dyeing of Fabric/Cloth

ANNEXURE 3EFFLUENT TREATMENT FACILITIES WITH DESIGN DETAILSEFFLUENT TREATMENT FLOW CHART

ZLDS Components Details:

Name of the Treatment Unit	No. of Units	Dimension
Screen Chamber	1	1.00x0.60x0.40
Collection Tank I	1	5.50x5.60x4.00
Chemical Preparation Tank	2	1.00x1.00x0.75
Flash Mixer	1	1.00x1.00x1.00
Floculation Channel	1	6.25x1.25x0.40
UASBR	1	2.40 Diax6.00
Aeration Tank	1	9.70x9.80x4.50
pH Correction and Settling Tank	1	2.50x6.25x2.50
Secondary Clarifier	1	6.50 Diax2.50
Clarified Effluent Sump	1	4.50x3.80x3.00
Collection Tank II	1	7.50x7.50x3.30
Acid Tank(HDPE Tank)	1	100 Lits. Capacity
Floculation Channel	1	3.25x2.90x0.50
Tertiary Clarifier	1	6.50 Diax3.00
Clarified Effluent Sump	1	4.65x3.80x2.90
Sludge Drying Beds	6	8.70x4.00x1.00
Sludge Drying Beds	5	8.60x4.40x1.00
Filter Press	1	5 cum/Hr. Capacity
Centrifuge	1	5 cum/Hr. Capacity
Pressure Sand Filter	1	2.20 Diax1.80
Activated Carbon Filter	1	1.50 Diax2.80
RO I Feed Tank	1	3.80x4.50x2.90
RO II Feed Tank	1	3.80x4.65x2.90
RO III Feed Tank	1	3.80x4.65x2.90
RO I, II & III Combined Permeate Tank	1	5.35x3.85x3.00
Nano Feed Tank	1	3.80x4.65x2.90
Nano Permeate Storage Tank	1	4.65x3.80x2.90
Nano Permeate Storage Tank(MS Tank)	1	10000 Lits. Capacity
Nano Reject Tank	1	6.55x5.50x2.60
Elevated Solar Evaporation Pans	2	6.05x15.30
Solar Evaporation Pans	5	17.30x11.65
Solar Evaporation Pan	1	17.30x14.65
Solar Evaporation Pan	1	17.30x14.50
Solar Evaporation Pan	1	17.30x11.70
Solar Evaporation Pan	1	13.55x14.65
UF System UF Membranes	24	0.20x1.00
Pre RO System	16	0.20x1.00
RO Stage I- Barckish Water Membranes	24	0.20x1.00
RO Stage II- Sea Water Membranes	8	0.20x1.00
RO Stage III- Sea Water Membranes	6	0.20x1.00
Nano Filtration- Nano Membranes	4	0.20x1.00
MEE(3 Effect)-2 Stage Falling Film&1 Stage Forced	1	40 KLD Capacity
Fan Dryer	2	200 Lits/Hr.Capacity

M/S. NAVARONG DYEING
WORKS
ROA REPORT



Report No. DEL/DGL/266

Tamilnadu Pollution Control Board

DISTRICT ENVIRONMENTAL LABORATORY, DINDIGUL-624 004.

REPORT OF ANALYSIS

1. Name and Address of the Sender : The District Environmental Engineer,
Tamilnadu Pollution Control Board,
Karur.
2. Date and time of Collection : 19.09.2020 @ 09.30 AM to 09.50 AM.
3. Date and time of Receipt at Laboratory : 19.09.2020 @ 04.25 PM.
4. Condition of Seals, Fastening and Container : Sealed and Fastened Condition in
Polythene Carbuoy of 2.5 Lit x 5.
5. Nature and Number of Samples : Five Nos. of Dyeing Effluent Samples.

DEE Code No.	Lab Code No.	Point of Collection	T/UT/PT/NM
497/AE/KAR	654	Collection Tank	Untreated
498/AE/KAR	655	RO Feed	Treated
499/AE/KAR	656	Combined RO Permeate	Treated
500/AE/KAR	657	MEE Feed	Treated
501/AE/KAR	658	ATFD Feed	Treated

Sl. NO	PARAMETERS	654	655	656	657	658
1	pH	6.16	1.72	5.99	7.95	8.57
2	Total Suspended Solids (mg/l)	322	24	04	96	500
3	Total Dissolved Solids (mg/l)	10876	12952	284	74200	296000
4	Chloride (as Cl) (mg/l)	4089	4674	140	22093	124961
5	Sulphate (as SO ₄) (mg/l)	1184	898	15	10550	25200
6	Oil and Grease (mg/l)	9.6	02	< 1.0	4.4	8.4
7	BOD 3 days at 27°C (mg/l)	561	*	02	126	326
8	Chemical Oxygen Demand (mg/l)	1760	216	24	576	1040
9	Total Kjeldhal Nitrogen (mg/l)	50.4	16.8	< 5.0	28	39.2
10	Sulphide (as S) (mg/l)	15.2	3.2	< 1.0	4.8	10.4
11	Phenolic Compounds (as Phenol) (mg/l)	0.034	0.024	< 0.0005	0.122	0.137
12	Percent Sodium (%)	81	90	41	94	93

* For Sample No:655 – Due to the pH interference BOD couldn't be analyzed.

End of the Report.

V. S. S. S. S. S.
Jr. Env. Scientist

S. S. S. S. S. S.
Deputy Chief Scientific Officer,
DEL, TNPCB, DINDIGUL.



TAMILNADU POLLUTION CONTROL BOARD

CONSENT ORDER NO. 170818718410

DATED: 05/04/2017.

PROCEEDINGS NO.F.0093KAR/RS/DEE/TNPCB/KAR/W/2017

DATED: 05/04/2017

SUB: Tamil Nadu Pollution Control Board - RENEWAL OF CONSENT - M/s. NAVARANG DYE WORKS, S.F.No. 1403/1D,1F,1G,1J,1K,1R,1S,1T, SANAPIRATTI village, Karur Taluk and Karur District - Renewal of Consent for the operation of the plant and discharge of sewage and/or trade effluent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act 6 of 1974) - issued-Reg.

- REF: 1>Your Application No:8718410 Dated :29.03.2017.
- 2.Proc.No:F.KAR0093/RS/DEE/TNPCB/KAR/W&A/2016 Dated:04.07.2016.
- 3.IR.No : F.0093KAR/RS/AE/KAR/2017 dated 04/04/2017

RENEWAL OF CONSENT is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act, 6 of 1974) (hereinafter referred to as "The Act") and the rules and orders made there under to

The Partner
M/s.NAVARANG DYE WORKS,
S.F.No. 1403/1D,1F,1G,1J,1K,1R,1S,1T,
SANAPIRATTI Village,
Karur Taluk,
Karur District

Authorising the occupier to make discharge of sewage and /or trade effluent.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

This RENEWAL OF CONSENT is valid for the period ending March 31, 2022

Raymond S/o
District Environmental Engineer,
Tamil Nadu Pollution Control Board,
KARUR

17
05/04/17

POLLUTION PREVENTION PAYS

அகம் தூய்மை வாய்மைக்கு ! புறம் தூய்மை வாழ்வுக்கு !



TAMILNADU POLLUTION CONTROL BOARD
SPECIAL CONDITIONS

1. This renewal of consent is valid for operating the facility for the manufacture of products/byproducts (Col. 2) at the rate (Col.3) mentioned below. Any change in the product/byproduct and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Sl. No.	Description	Quantity	Unit
Product Details			
1.	Bleached and Dyed Yarn	50.0	T/Month
2.	Bleached and Dyed Cloth	125.0	T/Month

2. This renewal of consent is valid for operating the facility with the below mentioned outlets for the discharge of sewage/trade effluent. Any change in the outlets and the quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Outlet No.	Description of Outlet	Maximum daily discharge in KLD	Point of disposal
Effluent Type : Sewage			
1.	Sewage	1.25	On Industrys own land
Effluent Type : Trade Effluent			
1.	Trade Effluent I	280.423	Recycling to process
2.	Trade Effluent II	5.577	Solar Evaporation Pans

POLLUTION PREVENTION PAYS

அகம் தூய்மை வாய்மைக்கு ! புறம் தூய்மை வாழ்வுக்கு !



TAMILNADU POLLUTION CONTROL BOARD

Additional Conditions:

- 1) The unit shall operate and maintain the ETP, RO with RMS continuously and efficiently so as to satisfy the standards prescribed by the Board and shall achieve Zero Discharge.
- 2) The unit shall ensure that the treated trade effluent from the R.O. shall be reused in the process completely and there shall not be any discharge of trade effluent outside/inside the premises under any circumstances except the final rejects into Solar Evaporation pan.
- 3) The unit shall operate and maintain the elevated Solar Evaporation Pan and ensure that no overflow or seepage shall gain access in to water source or on land owned by public/private.
- 4) The unit shall not increase its production capacity as against the consented quantity without getting prior consent of the Board and shall not use excess machineries.
- 5) The unit shall collect and dispose the ETP/SEP sludge properly so as to avoid the accumulation of the same within the premises as per the Hazardous and other wastes (Management and Transboundary Movement) Rules, 2016
- 6) The unit shall comply with the directions issued by the Hon'ble High court of Madras, Chennai in the interim order issued vide W.P No.24650/2003 from time to time.
- 7) The unit shall commence its activities only after obtaining the revocation of closure direction from the Board.
- 8) In case of revision of consent fee by the Government, the unit shall remit the difference in amount within one month from the date of notification. Failing to remit the consent fee, this consent order will be withdrawn without any notice and further action will be initiated against the unit as per law.
- 9) The unit shall maintain Form - III and submit Form - IV as per the Hazardous Waste and other waste (Management and Transboundary Movement) Rules, 2016.
- 10) The unit shall dispose the sludge through the Authorised disposers such as cement factories permitted to use in its kiln, for co - processing with necessary transport manifest system.


 District Environmental Engineer,
 Tamil Nadu Pollution Control Board,
 KARUR

To

The Partner,

M/s. NAVARANG DYE WORKS,

S.F.No.1403/1D,1F,1G,1J,1K,1R,1S,1T, Sanapiratti Village, 6763, A/3, Narikattiyur, Karur Taluk, Karur

District.,

Pin: 639004

Copy to:

1. The Commissioner, KARUR-Municipality, Karur Taluk, Karur District .
2. Copy submitted to the Member Secretary, Tamil Nadu Pollution Control Board, Chennai for favour of kind information.
3. Copy submitted to the JCEE-Monitoring, Tamil Nadu Pollution Control Board, Trichirappalli for favour of kind information.
4. File

POLLUTION PREVENTION PAYS

அகம் தூயமை வாய்மைக்கு உழும் தூயமை வாழ்வுக்கு



TAMILNADU POLLUTION CONTROL BOARD

CONSENT ORDER NO. 170828718410

DATED: 05/04/2017.

PROCEEDINGS NO.F.0093KAR/RS/DEE/TNPCB/KAR/A/2017 DATED: 05/04/2017

SUB: Tamil Nadu Pollution Control Board - RENEWAL OF CONSENT - M/s. NAVARANG DYE WORKS, S.F.No. 1403/1D,1F,1G,1J,1K,1R,1S,1T, SANAPIRATTI village, Karur Taluk and Karur District - Renewal of Consent for the operation of the plant and discharge of emissions under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) -Issued- Reg.

REF: 1.Your Application No:8718410 Dated :29.03.2017.
2.Proc.No:F.KAR0093/RS/DEE/TNPCB/KAR/W&A/2016 Dated:04.07.2016.
3.IR.No : F.0093KAR/RS/AF/KAR/2017 dated 04/04/2017

RENEWAL OF CONSENT is hereby granted under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) (hereinafter referred to as "The Act") and the rules and orders made there under to

The Partner
M/s.NAVARANG DYE WORKS,
S.F.No. 1403/1D,1F,1G,1J,1K,1R,1S,1T,
SANAPIRATTI village,
Karur Taluk,
Karur District.

Authorizing the occupier to operate the industrial plant in the Air Pollution Control Area as notified by the Government and to make discharge of emission from the stacks/chimneys.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

This RENEWAL OF CONSENT is valid for the period ending March 31, 2022

B. Rajendra Babu
District Environmental Engineer,
Tamil Nadu Pollution Control Board,
KARUR.

05/04/17

POLLUTION PREVENTION PAYS

அகம் தூய்மை வாய்மைக்கு 1 புறம் தூய்மை வாழ்வுக்கு !



TAMILNADU POLLUTION CONTROL BOARD
SPECIAL CONDITIONS

1. This renewal of consent is valid for operating the facility for the manufacture of products (Col. 2) at the rate (Col. 3) mentioned below. Any change in the products and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Sl. No.	Description	Quantity	Unit
Product Details			
1.	Bleached and Dyed Yarn	50.0	T/Month
2.	Bleached and Dyed Cloth	125.0	T/Month

2. This renewal of consent is valid for operating the facility with the below mentioned emission/noise sources along with the control measures and/or stack. Any change in the emission source/control measures/change in stack height has to be brought to the notice of the Board and fresh consent/Amendment has to be obtained.

I Point source emission with stack :				
Stack No.	Point Emission Source	Air pollution Control measures	Stack height from Ground Level in m	Gaseous Discharge in Nm ³ /hr
1	Boiler-3 T/Hr. & Boiler 5 T/Hr.	Common stack	21.00	
2	D G Set- 125 KVA	Stack	6.50	
3	D G Set- 125 KVA	Stack	6.50	
II Fugitive/Noise emission :				
Sl. No.	Fugitive or Noise Emission sources	Type of emission	Control measures	
1.	D-G Sets- 125 KVA- 2 Nos	Noise	Acoustic enclosures	

POLLUTION PREVENTION PAYS

அகம் தூய்மை வாய்மைக்கு ! தீரம் தூய்மை வாழ்வுக்கு !



TAMILNADU POLLUTION CONTROL BOARD

Additional Conditions:

1. The unit shall operate and maintain the Air Pollution Control measures provided such as stacks to boiler and DG. Sets continuously and efficiently so as to achieve AAQ/emission standards prescribed by the Board.
2. The unit shall ensure that the operation of the unit shall not give rise to any complaint from the public.
3. The unit shall comply with the directions issued by the Hon'ble High Court of Madras Chennai in the interim order issued vide W.P.No. 24650/2003 from time to time.
4. The unit shall adhere to the Ambient Noise Level Standards prescribed by the Board.
5. The unit shall continue to develop green belt around the premises.
6. In case of revision of consent fee by the Government, the unit shall remit the difference in amount within one month from the date of notification. Failing to remit the consent fee, this consent order will be withdrawn without any notice and further action will be initiated against the unit as per law".

S. Raj. Senthil
 District Environmental Engineer,
 Tamil Nadu Pollution Control Board,
 KARUR

M
5/7/04

To

The Partner,

M/s.NAVARANG DYE WORKS,

S.F.No.1403/1D,1F,1G,1J,1K,1R,1S,1T, Sanapiratti Village, 6/63,A/J, Narikattiyur, Karur Taluk, Karur

District,

Pin: 639004

Copy to:

1. The Commissioner, KARUR-Municipality, Karur Taluk, Karur District.
2. Copy submitted to the Member Secretary, Tamil Nadu Pollution Control Board, Chennai for favour of kind information.
3. Copy submitted to the JCEE-Monitoring, Tamil Nadu Pollution Control Board, Trichirappalli for favour of kind information.
4. File

POLLUTION PREVENTION PAYS

அகம் தூய்மை வாய்மைக்கு ! புறம் தூய்மை வறழ்வுக்கு !



TAMILNADU POLLUTION CONTROL BOARD

AUTHORISATION No. 20HFZ34499177 dated 03/11/2020

Proceeding No. JCEE-M/SMZ/TNPCB/F.0093KAR/HWA/RS/KAR/2020 dated 03/11/2020

Sub: Tamil Nadu Pollution Control Board – Hazardous Waste Authorization-Fresh- M/s. NAVARANG DYE WORKS, S.F.No. 1403/1D,1F,1G,1J,1K,1R,1S,1T, SANAPIRATTI Village, KARUR Taluk, Karur District - Authorization under Rule 6 (2) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 enacted under Environment (Protection) Act, 1986 – Issued-Reg.

Ref: 1. Application No. 34499177 dated 01.09.2020
2. HWA-IR.No.0093KAR/HWA/RS/DEE/KAR/2020 dated 08/10/2020.

FORM 2

[See rule 6 (2)]

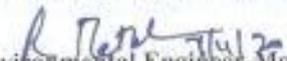
FORM FOR GRANT OR RENEWAL OF AUTHORISATION TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

- Number of authorization: 20HFZ34499177 and dated : 03/11/2020
- The Partner of M/s. NAVARANG DYE WORKS is hereby granted an Authorisation based on the enclosed signed Inspection report for - of hazardous or other wastes or both on the premises situated at S.F.No. 1403/1D,1F,1G,1J,1K,1R,1S,1T, SANAPIRATTI Village, KARUR Taluk, Karur District.

Sl No	Schedule / Name of the Processes	Name of Hazardous Waste (with category No)	Quantity	Activities for which Authorization is issued
1	Schedule 1/35: Purification and treatment of exhaust air/gases, water and waste water from the processes in this schedule and common industrial effluent treatment plants (CETP's)	35.3-Chemical sludge from waste water treatment	300 T/Annum	Generation, Collection, Storage, and Disposal for Co-processing in Authorized Cement kiln unit (including Accumulated quantity 16.25 tons as on 07.10.2020).
2	Schedule 1/35: Purification and treatment of exhaust air/gases, water and waste water from the processes in this schedule and common industrial effluent treatment plants (CETP's)	35.3-Chemical sludge from waste water treatment	250 T/Annum	Generation, Collection, Storage, and Disposal of mixed salt to common TSDF M/s.TNWML, virudhunagar for landfill as reported (including Accumulated quantity 25.4 tons as on 07.10.2020).

- This authorization shall be valid for a period upto 02/11/2025.

The Authorization is issued subject to the following general and special conditions annexed.


 Joint Chief Environmental Engineer-Monitoring
 Tamil Nadu Pollution Control Board
 Salem

A. GENERAL CONDITIONS OF AUTHORIZATION

- The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986 and the rules made there under.
- The authorization or its renewal shall be produced for inspection at the request of an officer authorized by Tamil Nadu Pollution Control Board.



TAMIL NADU POLLUTION CONTROL BOARD

3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this Authorisation.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. The person authorised shall implement Emergency Response procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorised shall comply with the provisions outlined in the CPCB guidelines on "Implementing Liabilities for Environmental damages due to Handling and Disposal of Hazardous Wastes and Penalty".
7. It is the duty of the authorized person to take prior permission of Tamil Nadu Pollution Control Board to close down the facility.
8. The imported Hazardous and other wastes shall be fully insured for transit as well as the accidental occurrences and its clean-up operation.
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. The Hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of Authorisation.
11. The importer or Exporter shall bear the cost of import or export or mitigation of damages if any.
12. An application for the renewal of an authorization shall be made as laid down under these Rules.
13. Any other conditions for compliance as per the Guidelines issued by the MoEF and CC or CPCB from time to time.
14. Annual returns shall be filed by June 30th for the period ending 31st March of the previous financial year.

B. SPECIFIC CONDITIONS - HW Generator

1. The occupier/generator shall be responsible for safe and environmentally sound management of hazardous and other wastes.
2. The occupier shall follow the following steps for the management of hazardous and other wastes. (a) prevention (b) minimization (c) reuse (d) recycling (e) recovery, utilisation including co-processing and (f) safe disposal
3. The occupier shall take all the steps while managing hazardous and other wastes - (a) To contain contaminants and prevent accidents and limit their consequences on human beings and the environment; and (b) To provide persons working in the site with appropriate training, equipment and the information necessary to ensure their safety.
4. The occupier shall store the hazardous and other wastes for a period not exceeding ninety days and shall maintain a record of sale, transfer, storage, recycling, recovery, pre-processing, co-processing and utilisation of such wastes and make these records available for inspection;
5. The hazardous and other wastes shall be stored temporarily in an isolated area earmarked for the purpose within the occupier's premises (it shall not be accessible to rain water) till scientific disposal. The storage area shall be fenced properly and a sign of danger shall be placed at the storage site.
6. The containers holding the hazardous and other wastes shall be kept in good condition and made of materials which can withstand the physical and environmental conditions during storage and transportation. Only properly cleaned containers shall be used for storage of hazardous and other wastes.
7. The occupier handling hazardous or other wastes shall maintain records of such operations of generation, handling, storage and disposal as per Form 3.
8. The hazardous and other wastes generated in the establishment of the occupier shall be sent or sold to an authorised actual user or shall be disposed of in an authorised disposal facility.
9. The occupier handling hazardous or other wastes shall ensure that the hazardous and other wastes are packaged in a manner suitable for safe handling, storage and transport as per the guidelines issued by the Central Pollution Control Board from time to time
10. The labelling of package of hazardous or other wastes shall be done as per Form 8. The label shall be of non-washable material, weather proof and easily visible.



TAMILNADU POLLUTION CONTROL BOARD

11. The hazardous and other wastes shall be transported from the occupier's establishment to an authorised actual user or to an authorised disposal facility in accordance with the provisions of these rules.
12. The transport of the hazardous and other wastes shall be in accordance with the provisions of these rules and the rules made by the Central Government under the Motor Vehicles Act, 1988 and the guidelines issued by the Central Pollution Control Board from time to time in this regard.
13. The occupier shall provide the transporter with the relevant information in Form 9, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency and shall label the hazardous and other wastes containers as per Form 8
14. The authorisation for transport shall be obtained either by the sender or the receiver on whose behalf the transport is being arranged.
15. The transporter/sender of the hazardous and other wastes shall prepare and maintain manifest in Form 10.
16. The occupier or the operator or the transporter shall immediately intimate TNPCB through telephone, e-mail about the accident and subsequently send a report in Form 11, where an accident occurs at the facility of the occupier handling hazardous or other wastes and operator of the disposal facility or during transportation
17. The occupier who intends to get its hazardous and other wastes treated and disposed of by the operator of a treatment, storage and disposal facility shall give to the operator of that facility, such specific information as may be needed for safe storage and disposal.
18. The occupier shall be liable for all damages caused to the environment due to improper handling and management of the hazardous and other wastes.
19. The occupier handling hazardous and other wastes shall submit annual returns containing the details specified in Form 4 to TNPCB on or before the 30th day of June of every year for the preceding period April to March.
20. Any increase in quantity of handling of hazardous and other wastes, any change in category of hazardous and other wastes and any change in method of handling operations shall be brought to the notice of the TNPCB and fresh authorization shall be obtained.

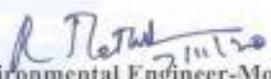
ADDITIONAL SPECIFIC CONDITIONS

1. THE UNIT SHALL DISPOSE ALL THE ACCUMULATED HAZARDOUS WASTE (AS PER THE ACTIVITY FOR WHICH AUTHORIZATION IS ISSUED) TO THE AUTHORIZED CEMENT KILN UNIT WITH VALID AGREEMENT MADE WITH THOSE FACILITIES AT ALL TIME.
2. THE UNIT SHALL DISPOSE THE HAZARDOUS WASTE GENERATED (ON DAY TO DAY BASIS) TO THE AUTHORIZED CEMENT KILN UNIT WITH VALID AGREEMENT MADE WITH THOSE FACILITIES AT ALL TIME.
3. THE UNIT SHALL DISPOSE THE MIXED SALT GENERATED (ON DAY TO DAY BASIS) TO THE COMMON LANDFILL FACILITY TSDF M/s.TNWML, virudhunagar for landfill as reported WITH VALID AGREEMENT MADE WITH THOSE FACILITIES AT ALL TIME as reported.
4. THE UNIT SHALL POSSES VALID CONSENT AT ALL TIMES.
5. The unit shall ensure that the Hazardous wastes shall be disposed only to the Authorized Person/Industry/Agency/Recyclers/Transporter as per the activities for which this Authorization is issued.
6. The Hazardous wastes shall be disposed only with manifest and the same shall be endorsed by the dispatcher, transporter and receiver of Hazardous waste.
7. The unit shall furnish the endorsed copy of the manifest maintained in Form-10 of the Hazardous and other wastes (Management and Transboundary Movement) Rules 2016 as amended to TNPCB.
8. The hazardous waste shall be stored in a compatible containers/HDPE bags on a impervious platform in closed shed to prevent pollution of ground water and surface soil.
9. The unit shall store the Hazardous waste such as spent/Used oil in MS barrels and the unit shall not store hazardous waste outside the premises under any circumstances.
10. The unit shall dewater the sludge before dispose into the TSDF/Cement Plants/Pre-Processing Facility.
11. The unit shall avoid spillage of hazardous waste in the unit's premises.
12. The unit shall ensure that there shall be no leakage or spillage of waste from the container during transportation of waste.
13. The unit shall generate and dispose the hazardous wastes within the authorized quantity.



TAMIL NADU POLLUTION CONTROL BOARD

14. The unit shall adhere to the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
15. The unit shall maintain the display board provide for specifying the quantity of hazardous waste accumulated and disposed in the storage area.
16. The unit shall maintain FORM III of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 in the premises.
17. The unit shall furnish the FORM IV as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 to the TNPCCB, on or before thirtieth June of every year.
18. The unit shall ensure that the transport container shall be labelled as prescribed in Form 8 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
19. The unit shall send the Transport Emergency (TREM) card in Form 9 with the transporter during the transportation of Hazardous wastes.
20. The unit shall furnish Emergency response plan(ERP) which should address procedures for dealing with emergency situations (viz. Spillage or release or fire) as specified in the guidelines of CPCB. Such ERP shall comprise the following, but not limited to:
 - Containing and controlling incidents so as to minimise the effects and to limit danger to the persons, environment and property;
 - Implementing the measures necessary to protect persons and the environment;
 - Description of the actions which should be taken to control the conditions at events and to limit their consequences, including a description of the safety equipment and resources available;
 - Arrangements for training staff in the duties which they are expected to perform;
 - Arrangements for informing concerned authorities and emergency services; and
 - Arrangements for providing assistance with off-site mitigatory action.
21. The unit shall reduce the hazardous waste generation year after year.
22. The unit shall take effective raw material and water conversion measures and cleaner production measures to minimize the generation of hazardous waste from time to time.
23. The unit shall follow the hazardous waste manifest system in form 13 while transportation of the Hazardous wastes.
24. The unit shall follow the guidelines and criteria for handling hazardous wastes prescribed by the CPCB from time to time.


 Joint Chief Environmental Engineer-Monitoring
 Tamil Nadu Pollution Control Board
 Salem

To
 The Partner
 NAVARANG DYE WORKS
 NAVARANG DYE WORKS,
 S.F.No.1403/1D,1E,1G,1J,1K,1R,1S,1T,
 Sanapratti Village,
 6/63,A/3, Narikattiyur,
 Karur Taluk,
 Karur District.
 Pin:639004



TAMILNADU POLLUTION CONTROL BOARD

Copy to:

1. Copy submitted to the Member Secretary, Tamil Nadu Pollution Control Board, Chennai for favour of kind information
2. The District Environmental Engineer, Tamil Nadu Pollution Control Board, KARUR.





ADVANCED ENVIRONMENTAL LABOURATORY,
TAMILNADU POLLUTION CONTROL BOARD, SALEM-636004.
Accredited by NABL -(ISO/IEC 17025:2005)



REPORT OF ANALYSIS

1. Name and address of the sender		The District Environmental Engineer, Tamilnadu Pollution Control Board, Karur.			
2. Condition of seal, fastening and Container		Sealed / Fastened Condition in Polythene carbuoy 2.5 Lits X 3 Nos. 1) DO Sample : Sterilized BOD Bottles Condition Vol. 300ml X 3 Nos. 2) Bacteriological Sample : Sterilized BOD Bottles Condition Vol. 300ml X 3 Nos.			
3. Nature of Sample		3 Nos. of Sewage Samples			
Sl.No	Point of Collection	Lab Code No.	DEE Code No.	Date & Time of collection	Date & Time of receipt at Lab
1	Inlet of STP - UT	2160	S1/Karur	12.02.2021 at 12.45 PM	12.02.2021 at 08.10 PM
2	From the Aeration tank PT	2161	S2/Karur	12.02.2021 at 12.50 PM	
3	Outlet of STP - T	2162	S3/Karur	12.02.2021 at 12.55 PM	

CSO
24/2/21
Dy.CSO

D. Mohanraj
Assistant Director (Lab)
AEL-TNPCB-SALEM.

ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD, SALEM - 636 004.
Accredited by NABL - (ISO/IEC 17025:2005)



ULR-TC - 68742100000254 P to
ULR-TC - 68742100000256 P

Sl. No.	Parameters	Parameters Analyzed for Water Samples - Salem District.				Test Method
		Sewage Samples		S3/Karur		
Nature of samples		Inlet of STP	From the Aeration tank	Outlet of STP		
Point of Collection		12.02.2021 at 12.45 PM	12.02.2021 at 12.50 PM	12.02.2021 at 12.55 PM		
Date of Collection		12.02.2021 at 08.10 PM				
Date & Time of Receipt						
DEE Code		S1/Karur	S2/Karur	S3/Karur		
Lab Code		2160	2161	2162		
Number		6.68	-	7.02		APHA 23rd Edi.2017 4500-H
mg/l		132	-	168		APHA 23rd Edi. 2017 5220
mg/l		1284	-	1248		APHA 23rd Edi.2017- 2540 - C
mg/l		15	-	38		IS3025 (P44) 1993 Reaffirmed 2009
mg/l		144	-	232		APHA 23rd Edi. 2017 5220
mg/l		9.52	-	8.4		APHA 23rd Edi. 2017 4500 - NH2 C
mg/l		3.4	-	2.4		Calculation Method
-		1.06	-	0.805		
MPN/ 100ML		7000	-	4900		APHA 23 rd Edi.2017 9221 B
MPN/ 100ML		3100	-	2200		APHA 23 rd Edi.2017 9221 E
mg/l		Nil	Nil	Nil		APHA 23rd Edi.2017 4500 - OC
mL/L		-	0.1	-		APHA 23rd Edi.2017 2540 - F

Note: 1) < = Indicates Less than Minimum Detectable Limit.

2) * The parameter marked with an * are not accredited by NABL.

PA 24/12/21
Dy.CSO

D. Mohanraj 24/12/21
Assistant Director (Lab)
AEL-TNPCC-SALEM.

EXIHIBIT

Preliminary Report of the Joint Committee constituted in the matter of OA No.: 257/2020 (SZ), Tribunal Vs Government of Tamilnadu & others

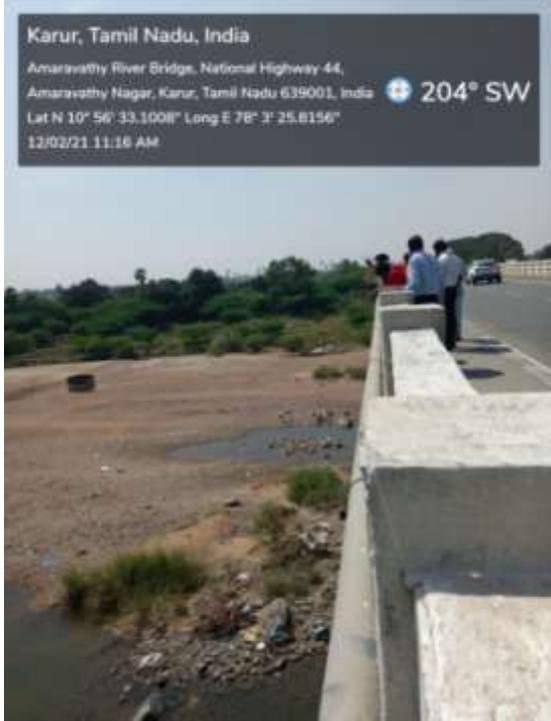
Joint Committee meeting held on 11th February, 2021 at the chamber of District Revenue Officer



River Amaravathy at Check Dam, Village Andankoil, Upstream of Karur



River Amaravathy at Madurai Bye pass bridge



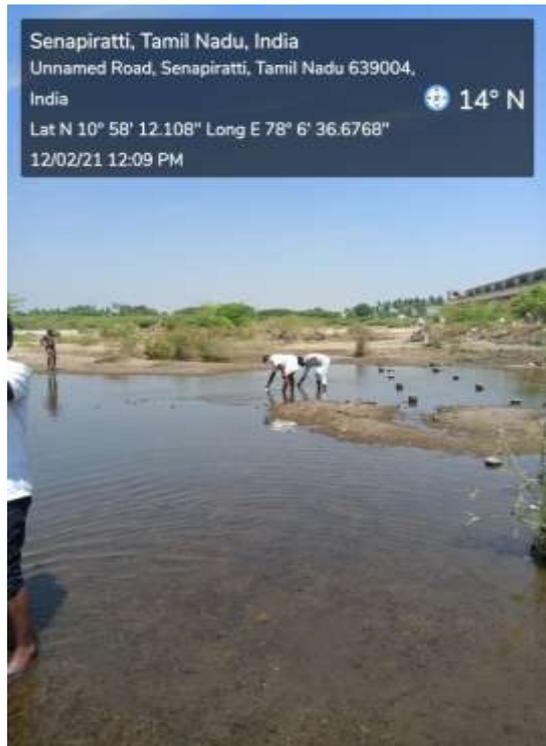
River Amaravathy at Arulmighu Vanjileeswar Temple, Bhramma Theertham Road



River Amaravathy at Padikattuthurai, Thirumanilayur

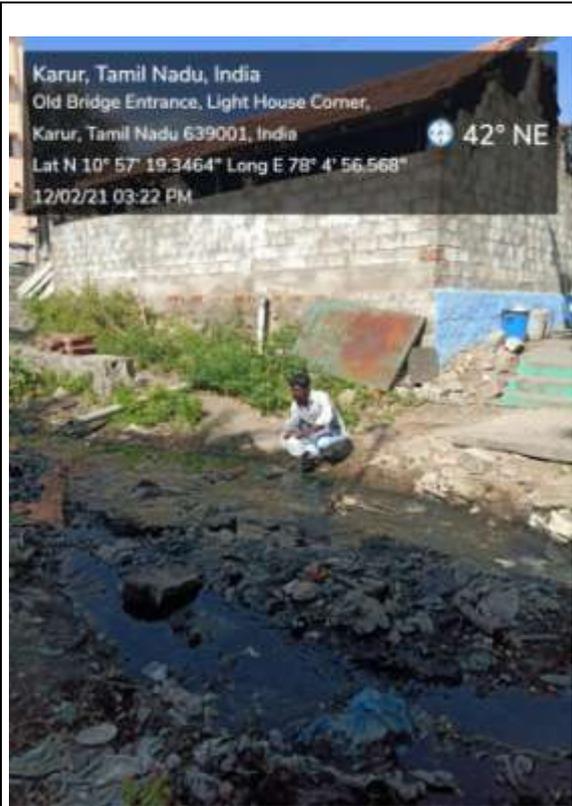


River Amaravathy at Sanapiratti



A10

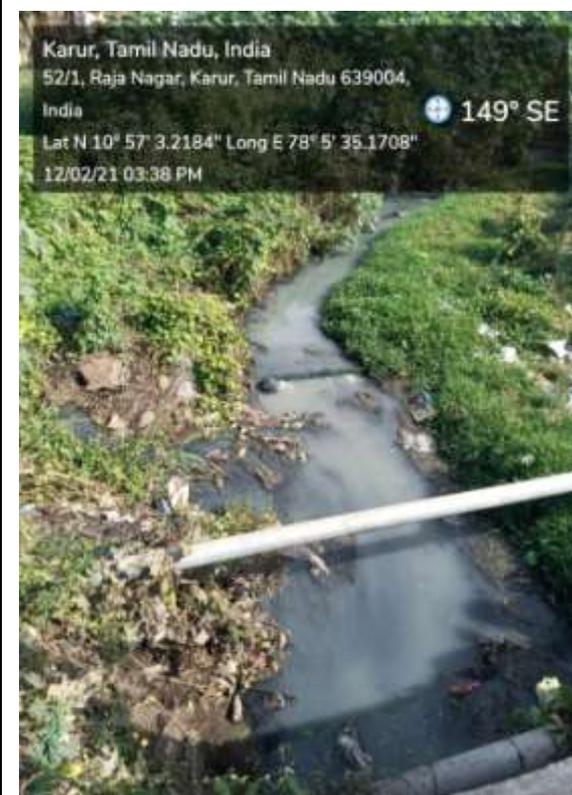
<p align="center">Discharge at Periyar Nagar, Periandankoil</p>	<p align="center">Discharge at AVS-AVR Colony</p>
 <p>Karur, Tamil Nadu, India Periya Andankovil Rd, Karur, Tamil Nadu 639001, India 199° S Lat N 10° 57' 6.7248" Long E 78° 2' 34.9332" 12/02/21 11:08 AM</p>	 <p>Karur, Tamil Nadu, India 30/14, Avr Colony, Karur, Tamil Nadu 639001, India 220° SW Lat N 10° 57' 13.5756" Long E 78° 4' 17.2524" 12/02/21 03:05 PM</p>
<p align="center">Discharge at Light house corner</p>	<p align="center">Discharge at Sungagate</p>



Discharge Near Animal Husbandary Office



Discharge at T. Sellandipalayam



Sewage Treatment Plant (STP)



A10

Equalisation tank	Aeration Tank
	
Clarifier of STP	Maturation Pond of STP
	
STP discharge into canal for irrigation	Irrigation canal at discharge point of STP

	
<p align="center">Micro Compost Centre at Integrated Solid Waste Management facility</p>	
	
<p align="center">Integrated Solid Waste Management facility</p>	<p align="center">Unloading of Vegetable and Fruit waste</p>
	
<p align="center">Making slurry to fed to Digester</p>	<p align="center">Bio-gas Holder</p>

A10

	
<p>Material recovery facility</p>	<p>RDF in baled condition</p>
	
<p>Bio-remediation of Legacy waste</p>	<p>Three stage Trommels</p>
	

<p>Bio-Mining of Legacy waste site</p>	<p>Schematic diagram of Bio-mining</p>
	
<p>Micro Compost Centre, Arugampalayam</p>	
	
<p>Disposal of recovered Sludge for co-processing from CETP at M/s. Amaravathy Pollutech Ltd., Andankoil East Village, Karur on the verge of completion</p>	<p>Disposal of recovered Sludge for co-processing from CETP at M/s. Karur Andankoil Pollution Control Ltd., Andankoil West Village, Karur under process</p>

	
<p>Dye bath</p>	<p>Dye house</p>
	
<p>ZLD SYSTEM at M/s. Atlas Processing Mills</p>	
<p>ETP</p>	<p>RO System</p>
	
<p>MEE</p>	<p>ATFD</p>

A10

	
SEP	Filter Press
	
ZLD system at M/s. Navarang Dye Works	
ETP	RO System
	
MEE	ATFD

A10

	
<p>SEP</p>	<p>Filter Press</p>
	